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FINAL REPORT

USMC

TRAINING & EDUCATION

INFORMATION MANAGEMENT

BUSINESS PROCESS IMPROVEMENT PROJECT

UNITED STATES MARINE CORPS
COMBAT DEVELOPMENT COMMAND

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TRAINING & EDUCATION DIVISION

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TRAINING READINESS NEEDS ANALYSIS REPORT

FINAL REPORT

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EXECUTIVE SUMMARY

The primary function of the Services is to "organize, train and equip" to support the warfighter.[1] The Department of Defense (DoD) Enterprise Model documents the overall relationship between the joint warfighting mission of the DoD, and the major mission areas that provide essential support to joint warfighting requirements.[2] Within the DoD Enterprise Model is the functional activity, "Training and Education" which is the responsibility of the Assistant Secretary of Defense for Personnel and Readiness. The Commandant of the Marine Corps is responsible for training, efficiency, readiness and total performance of the Marine Corps. He has stated that it is imperative that the Marine Corps maintain its relevancy, capability, and readiness.

In keeping with the guidance of the Commandant in this time of diminishing resources and force structure changes, the Director, Training and Education Division of MCCDC, has determined that the allocation of training resources needs to be directly related to mission accomplishment and training readiness.

In order to optimize available resources and minimize the impact of the declining DoD budget on operational readiness, it is important that the Marine Corps:

- Consolidate common functions to the maximum extent to achieve economies of scale;
- Maximize the utilization of existing assets through effective command and control;
- Capitalize on existing and emerging technology, and;
- Achieve the highest degree of readiness at least cost by reducing overhead expenses.

The Marine Corps training readiness improvement initiative, which defines and standardizes training readiness reporting, allocates training and education resources according to "value added" to warfighting capability objectives, and eliminates redundant automated information systems, accomplishes all four objectives. It also embodies a primary objective of Marine Corps training and education to maximize the transfer of learning and level of readiness through standardization of performance objectives.

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[1] National Security Act of 1947 amended by Public Law 99-433, Goldwater - Nichols DoD Reorganization Act of 1986.

[2] DoD 8020.1-M, *Functional Process Improvement* (Draft), Change 1, 15 January, 1993.

As reported in the Secretary of Defense's 1989 *Report of the Defense Management Review*, several initiatives must be undertaken to more effectively manage the Department of Defense (DoD) and defense resources. The cornerstone of his strategy for the Defense Department has been the systematic review and improvement of business practices under the Corporate Information Management (CIM) initiative. The principle underlying CIM is that it is more important to improve business practices than to apply advanced information technology.

As part of this effort, the US Marine Corps, Combat Development Command (MCCDC), Training and Education (T&E) Division, contracted to develop a training readiness needs analysis study to assist in the implementation of integrated business process improvements in the Marine Corps training and education functional area. The purpose of the Training Readiness Needs Analysis Report is to recommend functional process improvements that will ultimately minimize the impact of reduced DoD resources on the training readiness of Marine Air-Ground Task Force (MAGTF) units.

The scope of the project was to analyze current USMC training and education functions; determine potential business process improvement initiatives that will improve training readiness reporting; and develop a feasible business process alternative for providing the most efficient and effective training and education assessment structure.

The Training Readiness Needs Analysis Report was developed through a structured review and analysis of Marine Corps training and education processes. The first step was the development of the "AS-IS" (baseline) model using the Integrated Computer Aided Manufacturing (ICAM) Definition Language modeling process (IDEF). Problem areas were identified and corresponding improvement opportunities were developed. The Project Team staffed the problems and associated opportunities for improvement through field interviews and surveys, and collected data to support, enhance, or refute their findings. The Training and Education IDEF 0 "AS-IS" model complements the ongoing Marine Corps Combat Development Process (CDP) CIM functional process improvement effort and the Information Technology Standards-Based Architecture project.

The "Develop, Modify, & Conduct Training and Education" "AS-IS" activity model was developed from the viewpoint of the T&E Program Manager and depicts T&E activities related to all aspects of training development, modification and execution. This is a broad view and includes activities that support the actual conduct of training and education such as T&E concept development, T&E requirements determination, T&E instructional development, T&E resourcing, and T&E evaluation. This was

necessary to understand the relationships of all activities of T&E Program Managers and greatly assisted in identifying improvement opportunities.

The Combat Development Process model is being developed separately and from a much wider viewpoint in order to serve CG MCCDC's broader purpose. Some of the T&E support activities may well be lower level decompositions of CDP activities such as concept development, CDP requirements determination, CDP evaluation, etc. When T&E activities are folded into the CDP model during Phase II of the MCTRSS project, the relationships of T&E support activities to other activities of the combat development process will become clearer.

Findings:

(A) There is no standardized process that links allocation of T&E resources to warfighting requirements and provides an audit trail from required missions and doctrine to T&E requirements. This results in inefficient use of resources as different interests initiate various programs to achieve the same objective.

(B) Resource requirements for T&E programs do not compete well in the Marine Corps, Navy, and OSD POM process. The training establishment lacks an objective process that can:

- Document and quantify resource deficiencies and requirements;
- Perform an assessment of training readiness based on the impact of T&E deficiencies on CINC, Navy, Marine Corps, and MAGTF mission capability requirements, unit mission essential tasks, and unit mission performance standards, and;
- Prioritize requirements based on value added to training readiness.

(C) The lack of integrated systems (both internal and external to T&E) for documenting performance and assessment data:

- Hampers efficient and effective analysis;
- Results in redundant data entry;
- Causes time delays in reconciling records;
- Prevents easy tracking of information through its various stages, and;
- Causes unnecessary effort.

(D) The lack of standardization in reporting, collecting, and utilizing training assessment data and insufficient capability to cross-reference training readiness indicators result in incomplete, single dimensional analyses of training needs.

(E) The training and education process is dynamic but to a large degree it is reactive, rather than proactive.

(F) There is excessive time involved in manually compiling evaluation data.

(G) There is no clear connection between individual and collective training standards and between collective training standards and mission essential tasks.

(H) Training management guidance for units is unclear and compliance with FMFM 0-1 *Unit Training Management Guide* is inconsistent within the FMF.

(I) Multiple definitions exist for the same term.

(J) There is a lack of conformity between the Systems Approach to Training processes and the Training and Education Division organization and functions.

Principal Recommendations:

(1) The Marine Corps should adopt the following definition of training readiness as a first step in improving training readiness assessment: "*an objective, standards based measure, coupled with the assessment of commanders, of the ability of an individual or unit to perform the required skills and collective tasks which will produce units that can fight and win on today's battlefield*".

(2) The Marine Corps should adopt a standardized approach to assessing training readiness based on CINC and MAGTF warfighting requirements, doctrine, mission essential tasks, and mission performance standards.

(3) The Training and Education Division, MCCDC should publish a Marine Corps Training Readiness Assessment report for use by the T&E Division, MCCDC, and program groups during POM development. The assessment report should also be used by the Navy Comptroller to justify green and blue dollar support to Marine Corps training.

(4) The T&E Division should objectively link Training and Education resource requirements to CINC warfighting requirements/Integrated Priority Lists (IPLs), MAGTF mission essential tasks/Mission Performance Standards, and the Marine Corps Master Plan.

(5) A prototype training readiness assessment support system should be developed for the T&E Division to evaluate an improved Marine Corps Training Readiness Assessment process. The evaluation should be based on an assessment data base that integrates the outputs of selected stovepipe readiness reporting systems.

(6) Based on the outcomes of the prototype evaluation, the training readiness support system should be installed in all branches within T&E Division, MCCDC; the Requirements and Warfighting Development Integration Divisions, MCCDC; PPO and IG departments at HQMC; each of the three MEF headquarters, and MARFORLANT/MARFORPAC/MARRESFOR.

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TABLE OF CONTENTS

Section	Title	Page
	EXECUTIVE SUMMARY	i
	TABLE OF CONTENTS	vi
	LIST OF FIGURES	viii
	LIST OF TABLES	ix
1	INTRODUCTION	1-1
1.1	Purpose	1-1
1.2	Background	1-1
1.3	Goal	1-3
1.4	MCTRSS Objective	1-3
1.5	Phase I Objectives	1-3
1.6	Phase I Project Constraints	1-3
1.7	Related Efforts	1-4
2	PROJECT PLAN AND APPROACH	2-1
2.1	Phase I Project Scope	2-1
2.2	Methodology	2-1
2.3	Data Collection Plan/Site Visits	2-2
2.4	Team Concept/Points of Contact	2-2
3	"AS-IS" ACTIVITY MODELS	3-1
3.1	Introduction	3-1
3.2	"AS-IS" Activity Models	3-1
3.3	Improvement Opportunities	3-2
4	DISCUSSION AND RECOMMENDATIONS	4-1
4.1	Discussion	4-1
4.2	Process Improvements	4-1
4.2.1	Defining Training Readiness	4-1
4.2.2	Assessing Training Readiness	4-2
4.2.3	Reporting Training Readiness	4-3
4.2.4	Allocating Training Resources	4-3
4.3	Systems Integration	4-4
4.3.1	Data Integration	4-4
4.3.2	Concept Evaluation	4-4
4.4	Implementation	4-5
4.4.1	Fielding Strategy	4-5
4.4.2	Alternative Fielding Strategy	4-5

TABLE OF CONTENTS

Section	Title	Page
5	FEASIBILITY ANALYSIS	5-1
5.1	Discussion	5-1
5.2	Training Readiness Assessment	5-1
5.2.1	Assessment Elements	5-1
5.2.2	Joint Staff C4 Systems Assessment Methodology	5-2
5.2.3	The Joint Decision Support System	5-3
5.2.4	The Marine Corps Training Readiness Assessment	5-3
5.2.5	The Marine Corps Training Readiness Support System	5-24
5.3	Resource Allocation	5-26
5.3.1	The Resource Allocation Process	5-26
5.3.2	Summary	5-27
5.4	Major Decision Points	5-28

APPENDIX A: Needs Analysis Study Outline
APPENDIX B: Organizations/Units Visited
APPENDIX C: Cross-Functional Teams Composition
APPENDIX D: ICOM Definitions
APPENDIX E: T&E Data Source Diagram and Data Source Descriptions
APPENDIX F: Strawman Assessment Hierarchy & Strawman Resource Allocation Framework
APPENDIX G: References

LIST OF FIGURES

Figure	Title	Page
3-1	Develop/Modify/Conduct T&E	3-4
3-2	Guide T&E	3-5
3-3	Analyze/Design/Develop T&E	3-6
3-4	Develop T&E Resources	3-7
3-5	Implement T&E	3-8
3-6	Evaluate/Certify T&E	3-9
5-1	Marine Corps Training Assessment by Naval Forces' Operational Capabilities -- Current Assessment	5-9
5-2	Marine Corps Training Assessment by Naval Forces' Operational Capabilities -- Mid-Term Assessment	5-11
5-3	Marine Corps Training Assessment by Mission Area Current Assessment	5-13
5-4	Marine Corps Training Assessment by Mission Area Mid-Term Assessment	5-15
5-5	Marine Corps Training Assessment by MAGTF Element Current Assessment	5-17
5-6	Marine Corps Training Assessment by MAGTF Element Mid-Term Assessment	5-19
5-7	Marine Corps Training Assessment by Training Category Current Assessment	5-21
5-8	Marine Corps Training Assessment by Training Category Mid-Term Assessment	5-23

LIST OF TABLES

Table	Title	Page
5.1	Assessment Framework	5-5
5.2	Mission Performance Standard Assessment	5-6
5.3	Probable Sources of Data	5-25

SECTION 1
INTRODUCTION

1.1 PURPOSE

The Marine Corps Training Readiness Support System Project (MCTRSS) was initiated by the Training and Education Division of the Marine Corps Combat Development Command (MCCDC) in an effort to better define and measure training readiness. The project is divided into three sequential phases. During Phase I, a needs analysis was completed. Phase II will result in a prototype system. Phase III includes implementation and evaluation. At the conclusion of each phase, deliverables are to be provided. At the conclusion of Phases I and II, a decision will be made regarding continuation of the project to the next phase.

1.2 BACKGROUND

Because of concerns that the current and projected reductions in forces and funding may adversely affect force readiness, the Joint Staff, Congressional Budget Office, GAO and others are investigating ways to better define and measure readiness. The Joint Chiefs identified readiness as one of the four pillars of military capability and training as one of the categories in which readiness could be monitored.

The primary function of the Services is to "organize, train and equip" to support the warfighter.[1] The Department of Defense (DoD) Enterprise Model documents the overall relationship between the joint warfighting mission of the DoD, and the major mission areas that provide essential support to joint warfighting requirements.[2] Within the DoD Enterprise Model is the functional activity, "Training and Education" which is the responsibility of the Assistant Secretary of Defense for Personnel and Readiness.

The Commandant of the Marine Corps is responsible for training, efficiency, readiness and total performance of the Marine Corps. He has stated that it is imperative that the Corps retain its relevancy, capability and readiness. He has directed that a programmatic roadmap be developed that outlines clearly, in easily understood building blocks, the resource requirements for the Corps through the year 2015. His

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[1] National Security Act of 1947 amended by Public Law 99-433, Goldwater - Nichols DoD Reorganization Act of 1986.

[2] DoD 8020.1-M, *Functional Process Improvement* (Draft), Change 1, 15 January, 1993.

fundamental goal is the maintenance of a force that is ready, responsive and capable of fighting whenever and wherever called upon.

In keeping with the guidance of the Commandant in this time of diminishing resources and force structure changes, the Director, Training and Education Division of MCCDC, has determined that the allocation of training resources needs to be directly related to mission accomplishment and training readiness.

In order to optimize available resources and minimize the impact of the declining DoD budget on operational readiness, it is imperative that the Marine Corps:

- Consolidate common functions to the maximum extent to achieve economies of scale;
- Maximize the utilization of existing assets through effective command and control;
- Capitalize on existing and emerging technology, and;
- Achieve the highest degree of readiness at least cost by reducing overhead expenses.

The Marine Corps Training Readiness improvement initiative, which defines and standardizes training readiness reporting, allocates training and education resources according to "value added" to warfighting capability objectives, and eliminates redundant automated information systems, accomplishes all four objectives. It also embodies a primary objective of Marine Corps training and education to maximize the transfer of learning and level of readiness through standardization of performance objectives.

As reported in the Secretary of Defense's 1989 *Report of the Defense Management Review*, several initiatives must be undertaken to more effectively manage the Department of Defense (DoD) and defense resources. The cornerstone of his strategy for the Defense Department has been the systematic review and improvement of business practices under the Corporate Information Management (CIM) initiative. The principle underlying CIM is that it is more important to improve business practices than to apply advanced information technology.

As part of this effort, the U.S. Marine Corps, Combat Development Command (MCCDC), Training and Education (T&E) Division, contracted to develop a training readiness needs analysis study to assist in the implementation of integrated business process improvements in the Marine Corps training and education functional area. The purpose of the Training Readiness Needs Analysis Report is to recommend functional process improvements that will ultimately minimize the impact of reduced DoD resources on the training readiness of Marine Air-Ground Task Force (MAGTF) units.

1.3 GOAL

The goal of the MCTRSS is to better define and measure training readiness.

1.4 MCTRSS OBJECTIVE

The objective of MCTRSS is to adapt a Joint Staff, J6, assessment and resource allocation methodology for use by the Training and Education Division, MCCDC, to:

- Standardize training readiness assessment.
- Link resource allocation to warfighting requirements and training readiness.

1.5 PHASE I OBJECTIVES

Although the goal of the project is to better define and measure training readiness, Phase I, Needs Analysis, focused on identifying the processes that make up the training activity as it exists and showing inputs, outputs, controls and mechanisms through which training and education are conducted. The DoD standard methodology called Integrated Definition Language (IDEF) was used to develop the model. The model was completed and verified by Marine Corps subject matter and functional experts. The Marine Corps Training and Education System was then reviewed to determine if an assessment and resource allocation methodology (Joint Decision Support System) successfully used by the Joint Staff, J6, and the Warfighting CINCs could be adapted for use as a training readiness assessment and resource allocation tool. This report provides the results of that review. During Phase I, a Contract Performance Plan was developed and approved by the Marine Corps Project Officer. In addition, periodic reports and briefings were provided to selected principals at MCCDC and HQMC.

1.6 PHASE I PROJECT CONSTRAINTS

The IDEF-0 model of Marine Corps Training and Education was done in sufficient detail to satisfy Phase I objectives. Funding limitations precluded interviews with trainers and educators in I and III MEFs and inclusion of additional detail that will be attained during Phase II of the Project. This did not adversely impact the accomplishment of Phase I objectives.

1.7 RELATED EFFORTS

The following related efforts were considered during Phase I of the project:

- The Combat Development Process Corporate Information Management Functional Process Improvement initiated to clarify the USMC combat development process and provide framework for CDP management, education and improvement.

- The ongoing USMC Information Technology Standards-Based Architecture project sponsored by C^4I^2 to foster information systems interoperability.

- The Center for Naval Analysis Survey of Individual and Collective Training for Mission Area Analysis of Marine Corps Training, CRM 93-10/June 1993.

- The ongoing GAO Audit #703021, "Army and Marine Corps Reserve Component Training."

- Congressional Budget Office Data Call of September 10, 1993, "Marine Corps Readiness Indicators."

- The Army Training Information Management Program (ATIMP) to include the Standard Army Training System (SATS) IDEF project and the Automated Systems Approach to Training (ASAT) project.

- Office of the Secretary of Defense for Reserve Affairs Reserve component institutional training management initiative to develop a conceptual management plan for identifying the functional processes associated with the effective allocation, utilization and resourcing of formal school seats for individual reservists.

- CNA Ground Training Readiness Study initiated to develop a means to measure training readiness of Marine battalions to better determine resources spent and readiness achieved.

- Training and Education Division, MCCDC Training and Education Assessment Study to establish a data management system to correlate the T&E Division's efforts that support the MCMP and SEMP.

SECTION 2
PROJECT PLAN AND APPROACH

2.1 PHASE I PROJECT SCOPE

The scope of Phase I was to identify requirements and develop a Needs Analysis Report. This Needs Analysis Report contains the following:

- A business process model analysis to identify source data and reporting criteria;
- Identification of decision points;
- Determination of missions, objectives and constraints of training;
- Statement of feasibility for an assessment and evaluation system that will ensure the reliability, validity and fidelity of training-related readiness reporting;
- Identification of the requirements and objectives for a budget prioritization and resource allocation system.

See Appendix A for the Needs Analysis Study Outline.

2.2 METHODOLOGY

The DoD approved methodology for business process redesign is the Integrated Computer Aided Manufacturing (ICAM) Definition Language modeling process (IDEF). IDEF provides:

- A common means for defining and documenting current and proposed business practices;
- A foundation for change management;
- A basis for Functional Economic Analysis (FEA); and
- A mechanism to fully integrate and deconflict business processes, and their data requirements and data definition.

The IDEF methodology was derived from successful experience with Industrial Modernization Improvement Projects (IMIPs) in the 1970s. IDEF extends the IMIP approach to make it applicable to business contexts and service industries, including public agencies. In applying the IDEF methodology the Project Team employed a structured, iterative approach to model, analyze, and evaluate training and education processes and identify opportunities for improvement. This approach included conducting a Strategic Analysis of Training and Education assessment processes, building the "AS-IS activity model,

determining improvement opportunities, and assessing the feasibility of implementing improvement initiatives. Tools such as IDEF do not provide a scenario or script for telling the users what to model, when to start modeling, when to stop modeling, and what to do with the models once they are completed. The project team's deliberate approach supplied this requirement. This approach has been used successfully in many other industry and government projects, ranging from basic manufacturing to personnel operations.

2.3 DATA COLLECTION PLAN/SITE VISITS

Data collection efforts focused on gathering recently-completed studies that were deemed valid by functional experts, review of applicable documents and interviews with subject matter experts. Where appropriate, data collection extended beyond the Marine Corps. A balance was made among inputs obtained from sources at the HQMC, MCCDC, and field activities to ensure that various viewpoints of training and education were considered. Most interviews involved subject matter experts from HQMC, MCCDC, MARFORLANT, 2ND MARDIV, 2ND MAW, 2ND FSSG, MCB Camp Lejeune, MCB Cherry Point, LFTCLant and the Naval Doctrine Command. See Appendix B for a list of units/organizations visited.

2.4 TEAM CONCEPT/POINTS OF CONTACT

A team of subject matter experts from the Training and Educational Division of MCCDC and four cross-functional teams, with representatives from HQMC, MCCDC and field activities, were established. The Training and Education Division Team kept the project focused on training and education needs. They provided and validated data, reviewed deliverables, coordinated branch input and participated in functional team meetings. The cross functional teams added the functional perspective to the training and education system. They also provided and validated data. In an effort to conserve resources, team meetings were held to a minimum. The composition of the cross functional teams is at Appendix C.

SECTION 3
"AS-IS" ACTIVITY MODELS

3.1 INTRODUCTION

The "AS-IS" activity models represent current business processes associated with the Marine Corps activity *Develop/Modify/Conduct Training & Education*. The viewpoint used to develop these models is that of the Training and Education Program Manager. T&E Program Managers include personnel in headquarters organizations, schoolhouses, training centers, training support organizations, the supporting establishment, and the Fleet Marine Force. Each organization has separate management structures and automated information systems but perform similar activities.

The models were developed in coordination with the MCCDC Combat Development Process (CDP) "AS-TO" modeling effort currently underway. The T&E model is adapted from a node in the CDP model. The T&E model incorporates all ICOMs (Inputs, Controls, Outputs, and Mechanisms) from the CDP model with one addition; T&E Data as an input. T&E Data is defined as technical information or any other information with education and training application developed outside Marine Corps training and education processes. State of the art techniques in transfer of learning, testing, and presentation developed by civilian and other Service training and education institutions are examples of T&E Data.

The models have been developed from a "total force" aspect in that Reserve component activities are considered as integrated within the model. This is consistent with current practice. Training and education activities for the Reserve component are basically the same as for the Active Duty component. Terminology for the like activities may differ. Separate activities that support Reserve T&E would be shown at a very low level decomposition. Reserve ICOMs are shown in some instances where they are significantly unique to the Reserves.

3.2 "AS-IS" ACTIVITY MODELS

Figures 3-1 through 3-6 show node trees for the activity *Develop/Modify/Conduct Training & Education*. The "T&E" model was developed incorporating individual as well as unit training and considers training and education in the classroom and in the field. The structure of the model reflects the Marine Corps' *Systems Approach to Training* (SAT) as documented in the SAT Guide published 19 October 1993. The five major nodes are:

- **A1: Guide T&E** – processes which result in development of T&E policies/guidance/goals & objectives, issue approval and publication of directives, manuals, educational materials, and other documents;

- **A2: Analyze, Design, Develop T&E** – processes involved with analyzing needs, developing task requirements and standards, designing instruction, and developing instructional material and plans;

- **A3: Develop T&E Resources** – processes associated with planning, programming, and budgeting training and education resources;

- **A4: Implement T&E** – processes which include direct administrative support, the conduct of institutional training and education, and conduct of training in units;

- **A5: Evaluate/Certify T&E** – processes which involve the validation of the SAT, evaluation of T&E management, evaluation of the conduct of training, evaluation and certification of individuals and units, and the analysis and interpretation of evaluation results for feedback to modify training and education.

3.3 IMPROVEMENT OPPORTUNITIES

Items that appear in *italics* in the activity discussions on pages 3-11 through 3-85 discuss observations made by the study team during the conduct of the study or describe situations where there was widely varying degrees of compliance with existing directives. These activities are potential areas for improvement.

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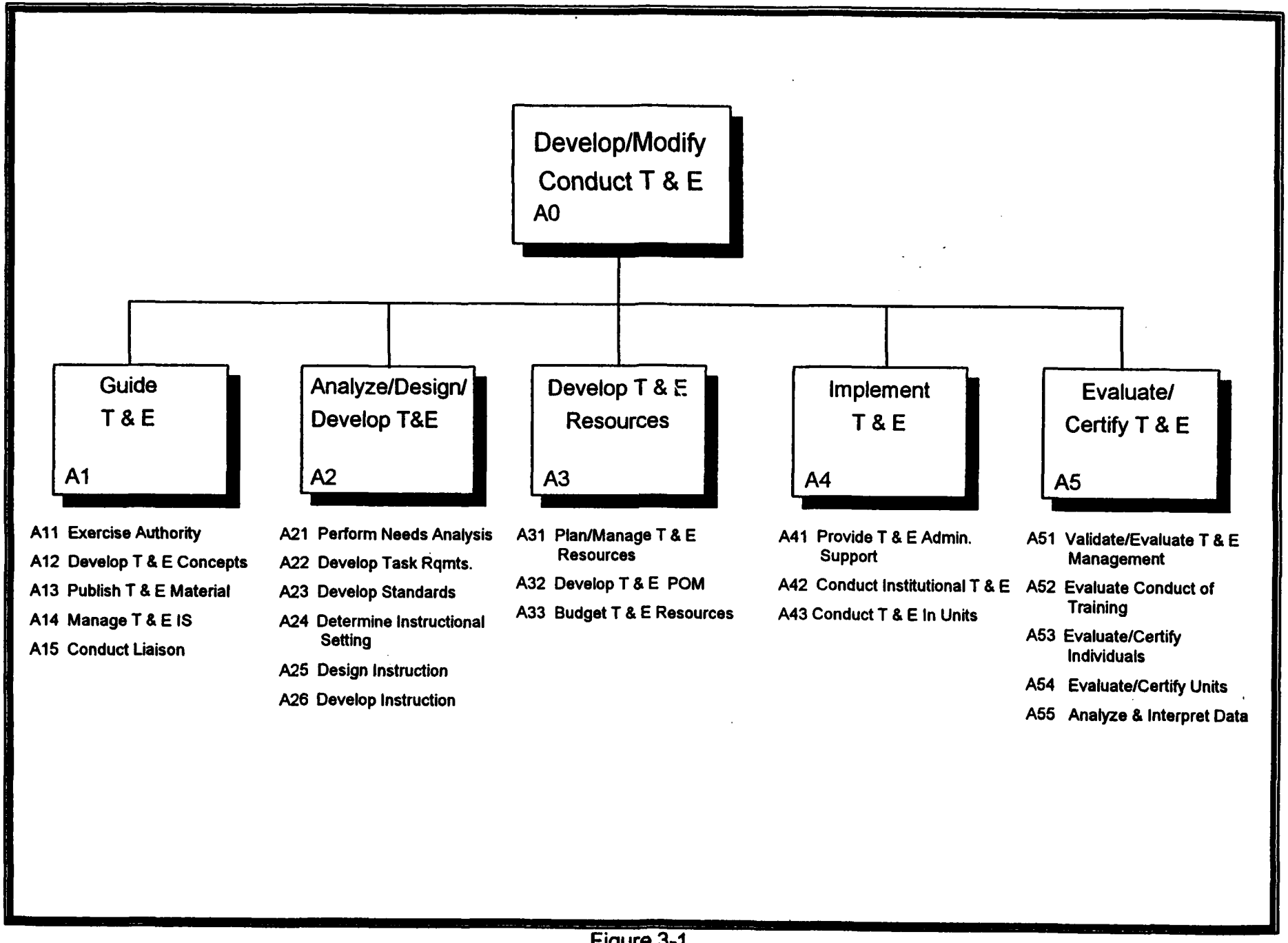
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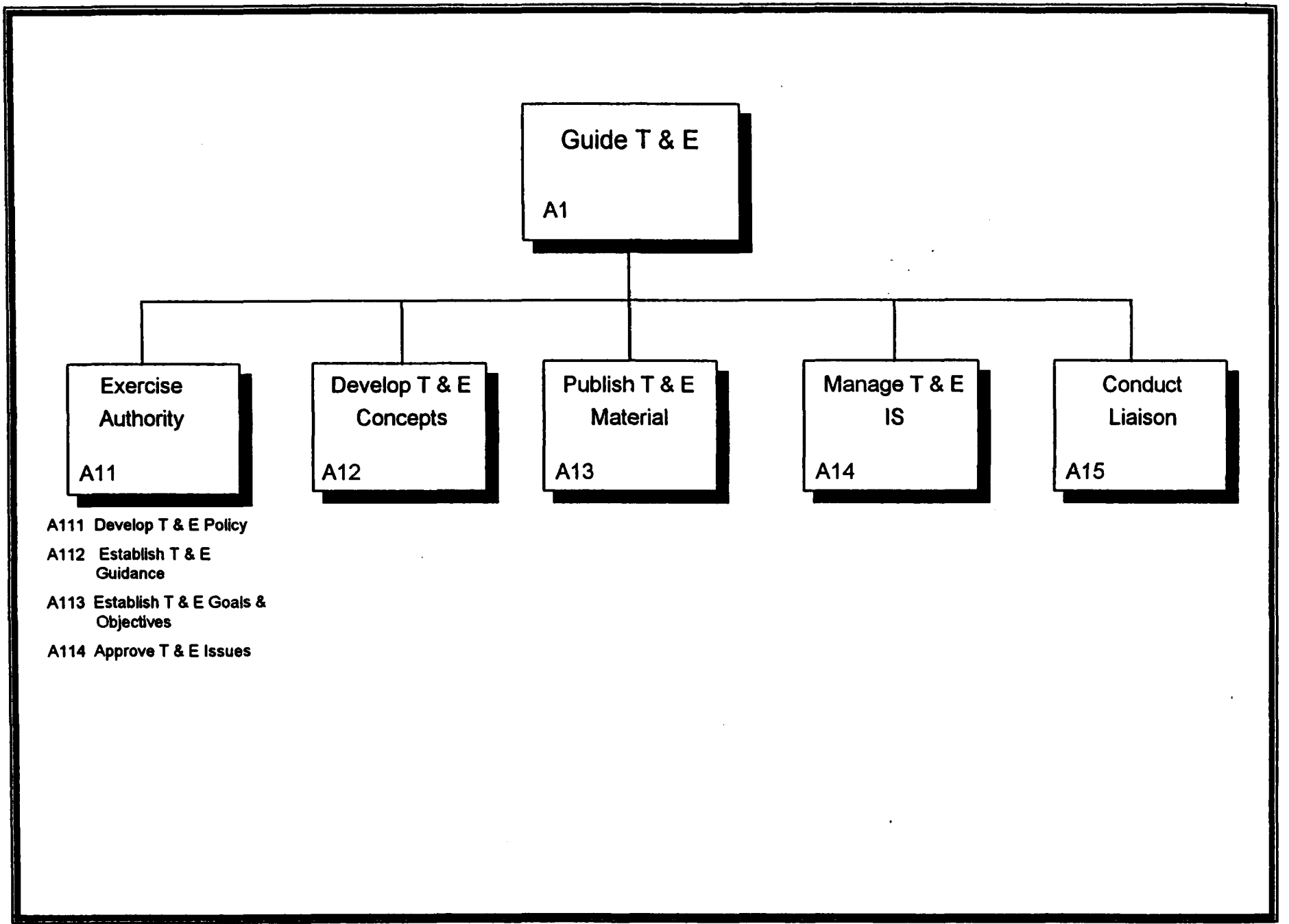
A2
Develop T & E
Resources
A3
Implement
T & E
A4
Evaluate/
Certify T & E
A5
A11 Exercise Authority
A12 Develop T & E Concepts
A13 Publish T & E Material
A14 Manage T & E IS
A15 Conduct Liaison
A21 Perform Needs Analysis
A22 Develop Task Rqmts.
A23 Develop Standards
A24 Determine Instructional Setting
A25 Design Instruction
A26 Develop Instruction
A31 Plan/Manage T & E Resources
A32 Develop T & E POM
A33 Budget T & E Resources
A41 Provide T & E Admin. Support
A42 Conduct Institutional T & E
A43 Conduct T & E In Units
A51 Validate/Evaluate T & E Management
A52 Evaluate Conduct of Training
A53 Evaluate/Certify Individuals
A54 Evaluate/Certify Units
A55 Analyze & Interpret Data

Figure 3-1


Guide T & E
A1
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Publish T & E Material
A13
Manage T & E IS
A14
Conduct Liaison
A15
A111 Develop T & E Policy
A112 Establish T & E Guidance
A113 Establish T & E Goals & Objectives
A114 Approve T & E Issues

Figure 3-2

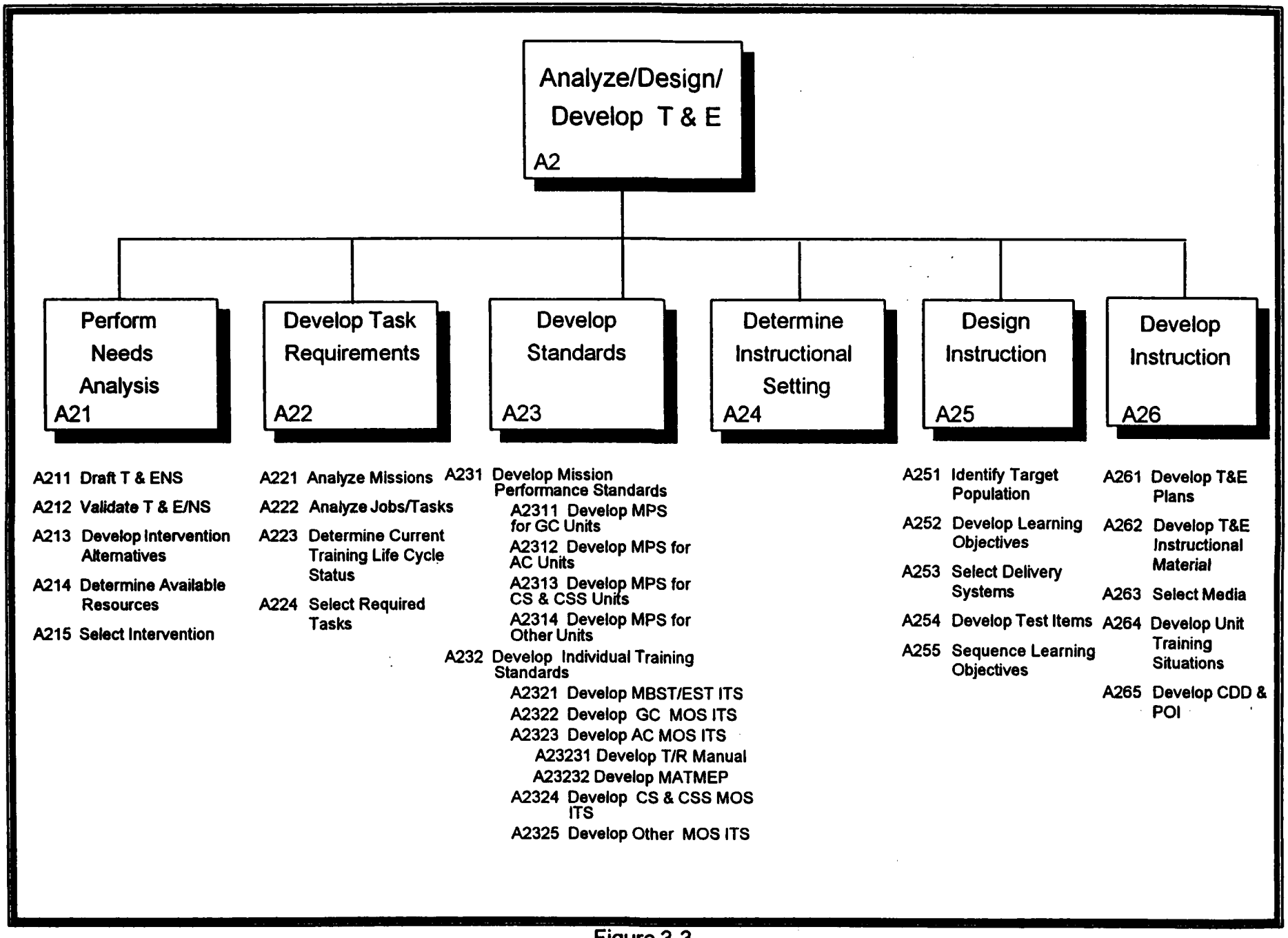
Analyze/Design/ Develop T & E
A2
Perform Needs Analysis
A21
Develop Task Requirements
A22
Develop Standards
A23
Determine Instructional Setting
A24
Design Instruction
A25
Develop Instruction
A26
A211 Draft T & ENS
A212 Validate T & E/NS
A213 Develop Intervention Alternatives
A214 Determine Available Resources
A215 Select Intervention
A221 Analyze Missions
A222 Analyze Jobs/Tasks
A223 Determine Current Training Life Cycle Status
A224 Select Required Tasks
A231 Develop Mission Performance Standards
A2311 Develop MPS for GC Units
A2312 Develop MPS for AC Units
A2313 Develop MPS for CS & CSS Units
A2314 Develop MPS for Other Units
A232 Develop Individual Training Standards
A2321 Develop MBST/EST ITS
A2322 Develop GC MOS ITS
A2323 Develop AC MOS ITS
A23231 Develop T/R Manual
A23232 Develop MATMEP
A2324 Develop CS & CSS MOS ITS
A2325 Develop Other MOS ITS
A251 Identify Target Population
A252 Develop Learning Objectives
A253 Select Delivery Systems
A254 Develop Test Items
A255 Sequence Learning Objectives
A261 Develop T&E Plans
A262 Develop T&E Instructional Material
A263 Select Media
A264 Develop Unit Training Situations
A265 Develop CDD & POI

Figure 3-3

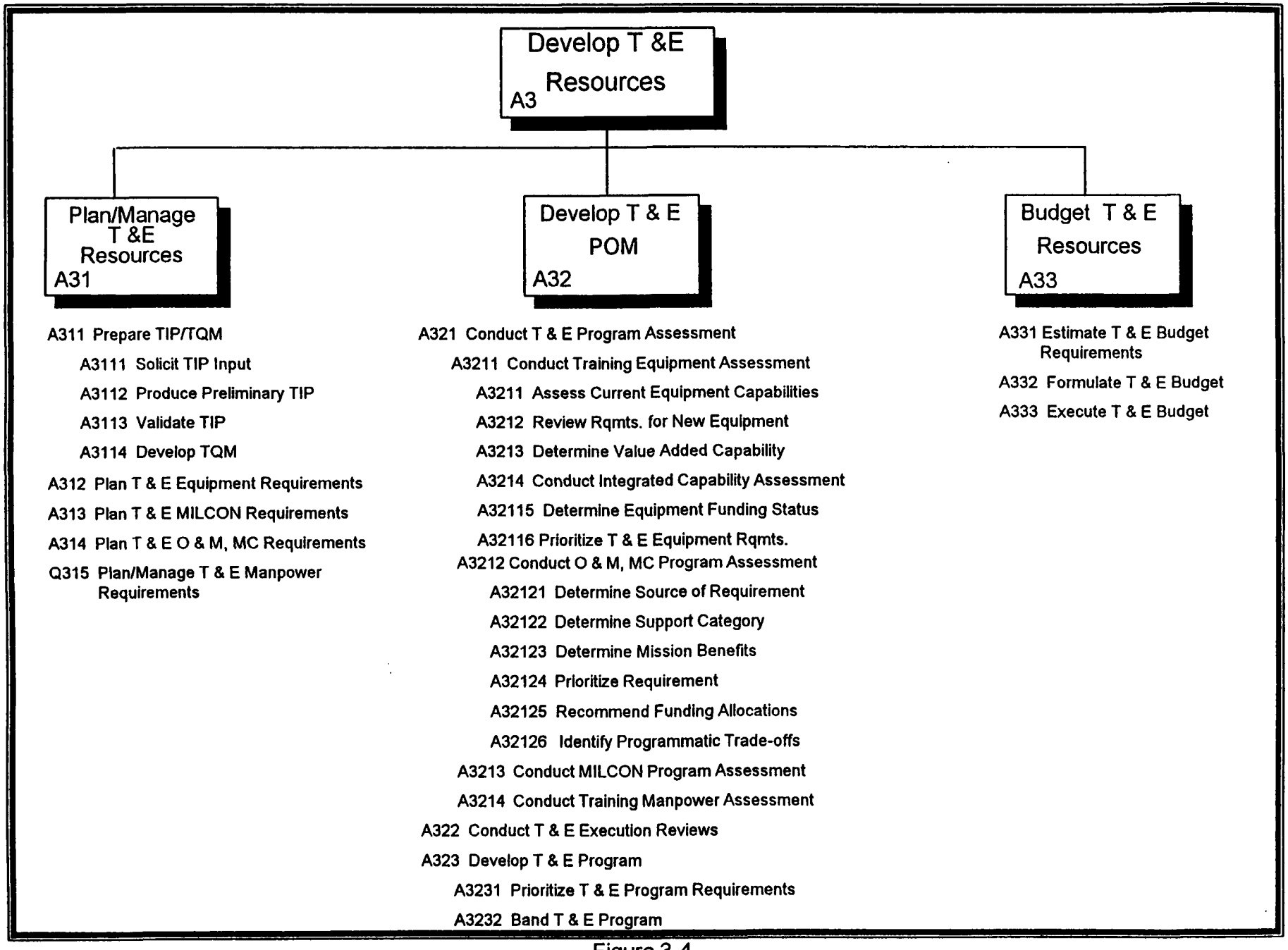
Develop T &E Resources
A3
Plan/Manage T &E Resources
A31
Develop T & E POM
A32
Budget T & E Resources
A33
A311 Prepare TIP/TQM
A3111 Solicit TIP Input
A3112 Produce Preliminary TIP
A3113 Validate TIP
A3114 Develop TQM
A312 Plan T & E Equipment Requirements
A313 Plan T & E MILCON Requirements
A314 Plan T & E O & M, MC Requirements
Q315 Plan/Manage T & E Manpower Requirements
A321 Conduct T & E Program Assessment
A3211 Conduct Training Equipment Assessment
A3211 Assess Current Equipment Capabilities
A3212 Review Rqmts. for New Equipment
A3213 Determine Value Added Capability
A3214 Conduct Integrated Capability Assessment
A32115 Determine Equipment Funding Status
A32116 Prioritize T & E Equipment Rqmts.
A3212 Conduct O & M, MC Program Assessment
A32121 Determine Source of Requirement
A32122 Determine Support Category
A32123 Determine Mission Benefits
A32124 Prioritize Requirement
A32125 Recommend Funding Allocations
A32126 Identify Programmatic Trade-offs
A3213 Conduct MILCON Program Assessment
A3214 Conduct Training Manpower Assessment
A322 Conduct T & E Execution Reviews
A323 Develop T & E Program
A3231 Prioritize T & E Program Requirements
A3232 Band T & E Program
A331 Estimate T & E Budget Requirements
A332 Formulate T & E Budget
A333 Execute T & E Budget

Figure 3-4

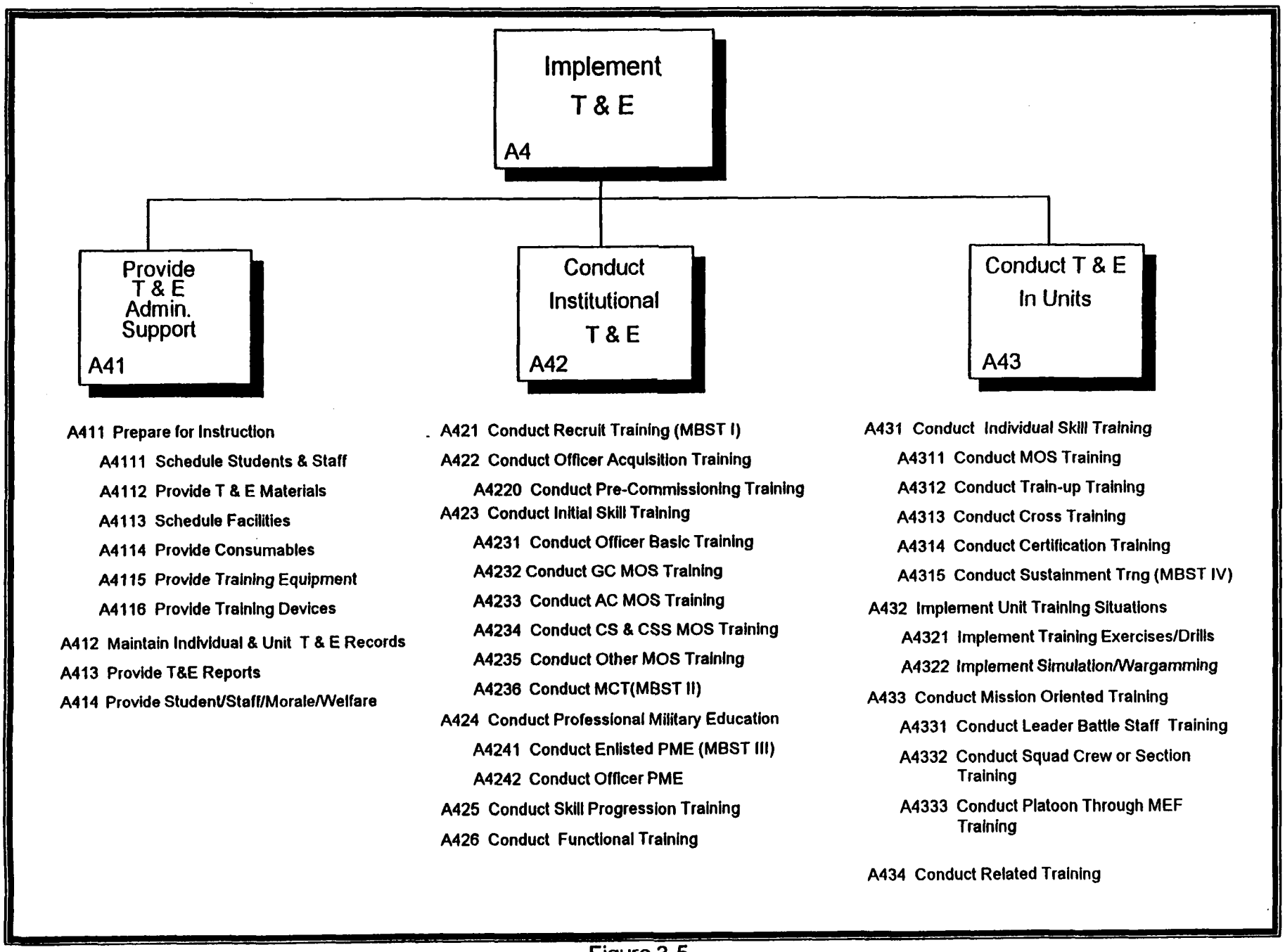
Implement T & E
A4
Provide T & E Admin. Support
A41
Conduct Institutional T & E
A42
Conduct T & E In Units
A43
A411 Prepare for Instruction
A4111 Schedule Students & Staff
A4112 Provide T & E Materials
A4113 Schedule Facilities
A4114 Provide Consumables
A4115 Provide Training Equipment
A4116 Provide Training Devices
A412 Maintain Individual & Unit T & E Records
A413 Provide T&E Reports
A414 Provide Student/Staff/Morale/Welfare
A421 Conduct Recruit Training (MBST I)
A422 Conduct Officer Acquisition Training
A4220 Conduct Pre-Commissioning Training
A423 Conduct Initial Skill Training
A4231 Conduct Officer Basic Training
A4232 Conduct GC MOS Training
A4233 Conduct AC MOS Training
A4234 Conduct CS & CSS MOS Training
A4235 Conduct Other MOS Training
A4236 Conduct MCT(MBST II)
A424 Conduct Professional Military Education
A4241 Conduct Enlisted PME (MBST III)
A4242 Conduct Officer PME
A425 Conduct Skill Progression Training
A426 Conduct Functional Training
A431 Conduct Individual Skill Training
A4311 Conduct MOS Training
A4312 Conduct Train-up Training
A4313 Conduct Cross Training
A4314 Conduct Certification Training
A4315 Conduct Sustainment Trng (MBST IV)
A432 Implement Unit Training Situations
A4321 Implement Training Exercises/Drills
A4322 Implement Simulation/Wargamming
A433 Conduct Mission Oriented Training
A4331 Conduct Leader Battle Staff Training
A4332 Conduct Squad Crew or Section Training
A4333 Conduct Platoon Through MEF Training
A434 Conduct Related Training

Figure 3-5

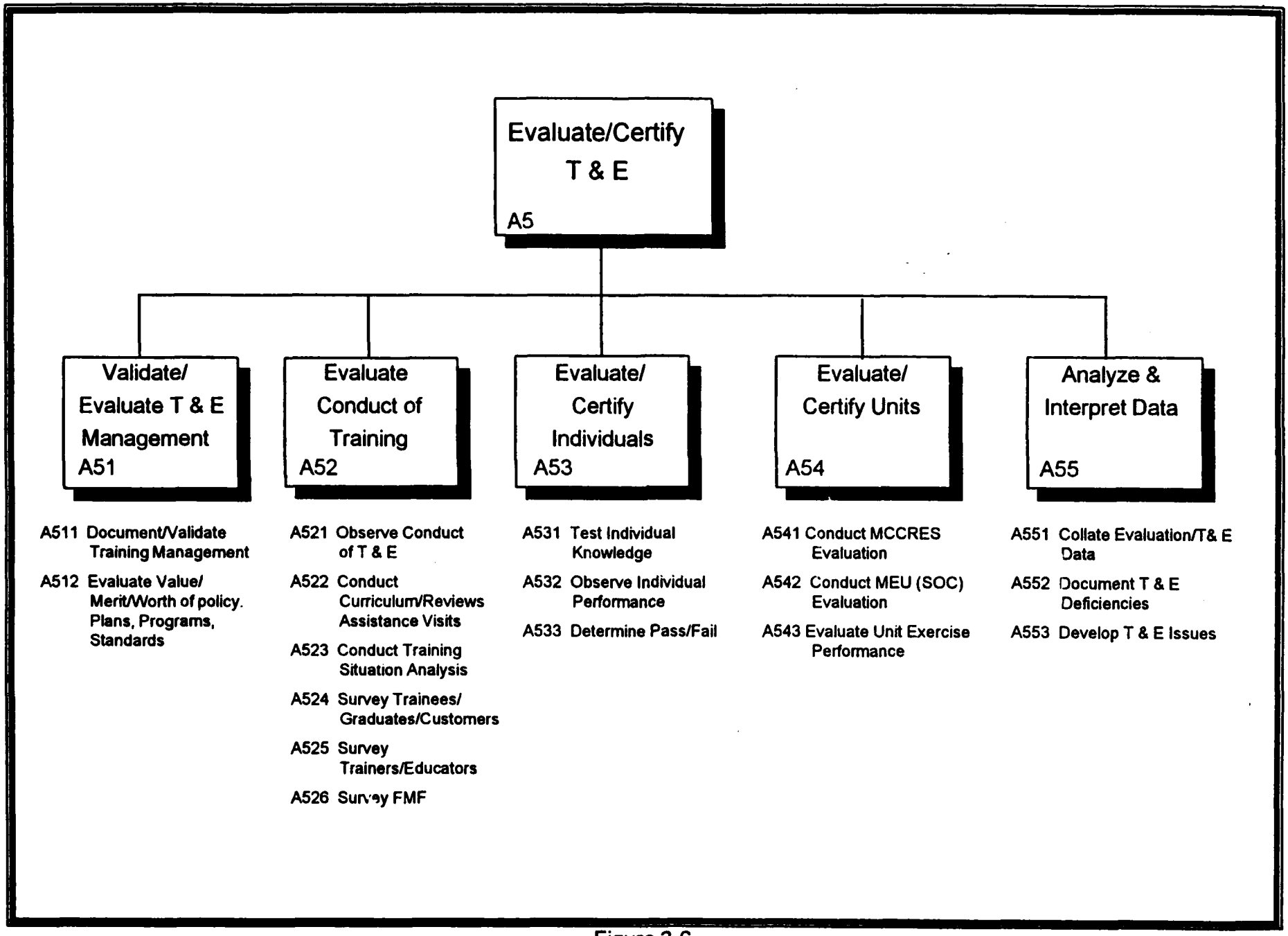
Evaluate/Certify T & E
A5
Validate/ Evaluate T & E Management
A51
Evaluate Conduct of Training
A52
Evaluate/ Certify Individuals
A53
Evaluate/ Certify Units
A54
Analyze & Interpret Data
A55
A511 Document/Validate Training Management
A512 Evaluate Value/ Merit/Worth of policy. Plans, Programs, Standards
A521 Observe Conduct of T & E
A522 Conduct Curriculum/Reviews Assistance Visits
A523 Conduct Training Situation Analysis
A524 Survey Trainees/ Graduates/Customers
A525 Survey Trainers/Educators
A526 Survey FMF
A531 Test Individual Knowledge
A532 Observe Individual Performance
A533 Determine Pass/Fail
A541 Conduct MCCRES Evaluation
A542 Conduct MEU (SOC) Evaluation
A543 Evaluate Unit Exercise Performance
A551 Collate Evaluation/T& E Data
A552 Document T & E Deficiencies
A553 Develop T & E Issues

Figure 3-6

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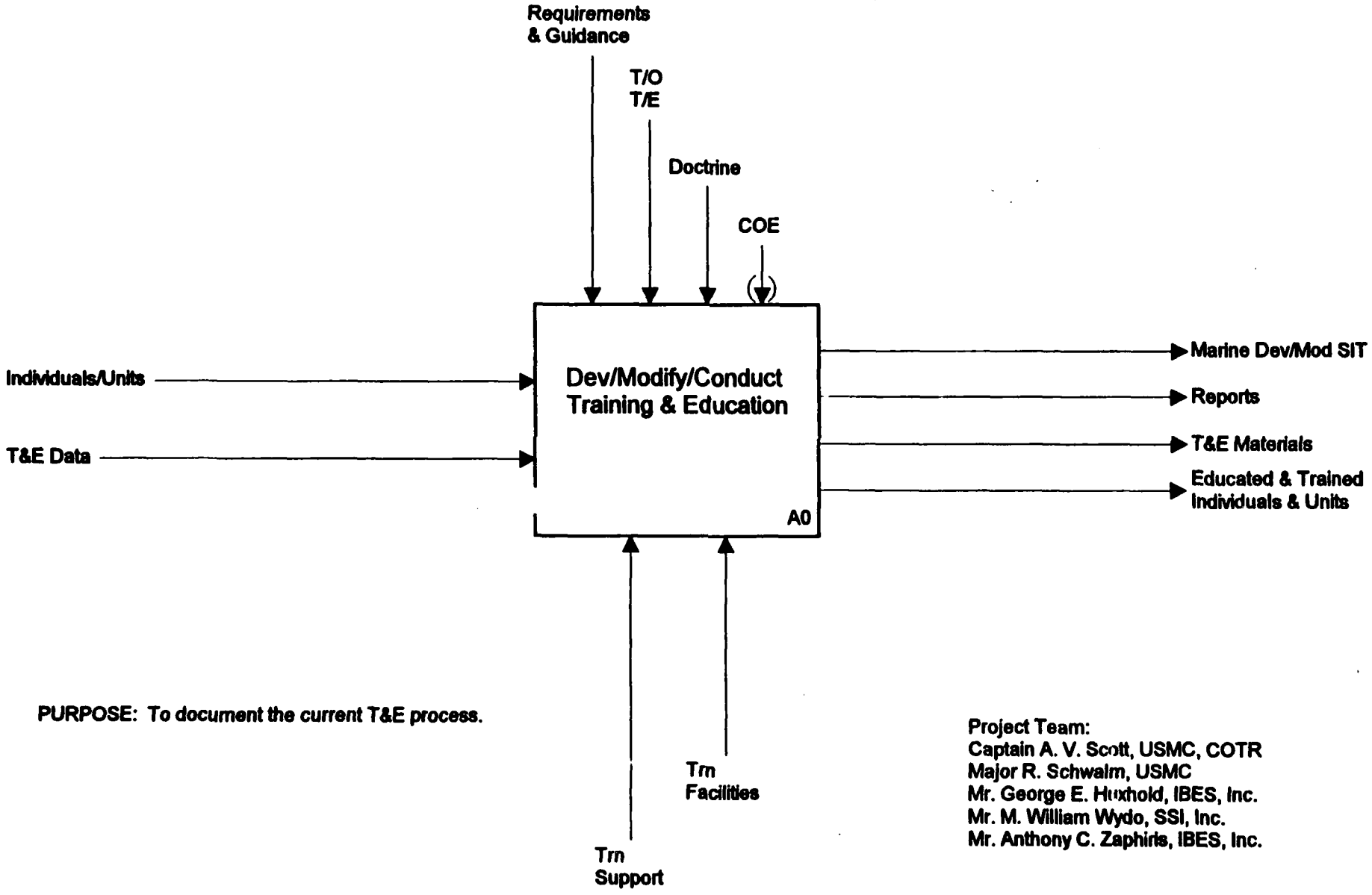

PURPOSE: *To document the current T&E process.*

Project Team:
Captain A. V. Scott, USMC, COTR
Major R. Schwalm, USMC
Mr. George E. Huxhold, IBES, Inc.
Mr. M. William Wydo, SSI, Inc.
Mr. Anthony C. Zaphiris, IBES, Inc.

NODE: A-0	TITLE: Dev/Modify/Conduct Training & Education	VIEWPOINT: T&E Program Manager

ACTIVITY A0: DEVELOP/MODIFY/CONDUCT T&E

The context diagram "A-0" is the top-level "T&E AS-IS" activity model. The activity *Develop/Modify/Conduct Training & Education* includes activities that allow the training and education program manager to **Guide, Analyze/Design/Develop, Develop Resources, Implement T&E, and Evaluate and Certify T&E**. The model depicts the current Training Development Process (TDP) and includes all T&E activities supporting T&E implementation. The TDP is controlled by a series of requirements and guidance (i.e. federal statutes and regulations, CINC and Service missions, DoD and Service guidance), doctrine, tables of organization and equipment, and concepts of employment. The primary products of the activity are trained and educated individuals and units. T&E managers must produce a variety of T&E materials and reports such as program and budget submissions as well as non-DoD reports and other compliance reports as necessary. A primary result of this activity is modification to the training readiness situation of units and individuals. The mechanisms that perform these activities include training facilities and training support. Training facilities include schoolhouses and ranges. Training support includes individuals, equipment, devices, simulators, consumables and automated information systems. The TDP is developed from the Systems Approach to Training (SAT).

The principal deficiencies that permeate all USMC training and education management activities at this highest level include the following:

- There is no standardized process linking allocation of T&E resources to warfighting requirements by providing an audit trail from required missions and doctrine to T&E requirements. This results in inefficient use of resources as different interests within training and education organizations initiate inconsistent programs striving to accomplish the same thing;

- There is no integrated vehicle (both internal and external to T&E) for documenting assessment data. This hampers efficient and effective analysis, results in redundant data entry, causes time delays in reconciling records, prevents easy tracking of information through its various stages, and causes unnecessary effort;

- The lack of standardization in reporting, collecting, and utilizing training assessment data and insufficient capability to cross-reference training readiness indicators result in incomplete, single dimensional analyses of training needs;

- There is excessive time involved in manually compiling evaluation data;

- There is no clear connection between individual and collective training standards;

- Training management guidance for units is unclear;

- Multiple definitions exist for the same term;

- There is a lack of conformity between the Systems Approach to Training processes and the Training and Education Division organization and functions.

Relationship to Combat Development Process (CDP) "AS-TO" activity model. The "Develop, Modify, & Conduct Training and Education" "AS-IS" activity model was developed from the viewpoint of the T&E Program Manager and depicts T&E activities related to all aspects of training development, modification and execution. This is a broad view and includes activities that support the actual conduct of training and education such as T&E concept development, T&E requirements determination, T&E instructional development, T&E resourcing, and T&E evaluation. This was necessary to understand the relationships of all activities of T&E Program Managers and greatly assisted in identifying improvement

opportunities.

The Combat Development Process model is being developed separately and from a much wider viewpoint in order to serve CG MCCDC's broader purpose. Some of the T&E support activities may well be lower level decompositions of CDP activities such as concept development, CDP requirements determination, CDP evaluation, etc. When T&E activities are folded into the CDP model during Phase II of the MCTRSS project, the relationships of T&E support activities to other activities of the combat development process will become clearer.

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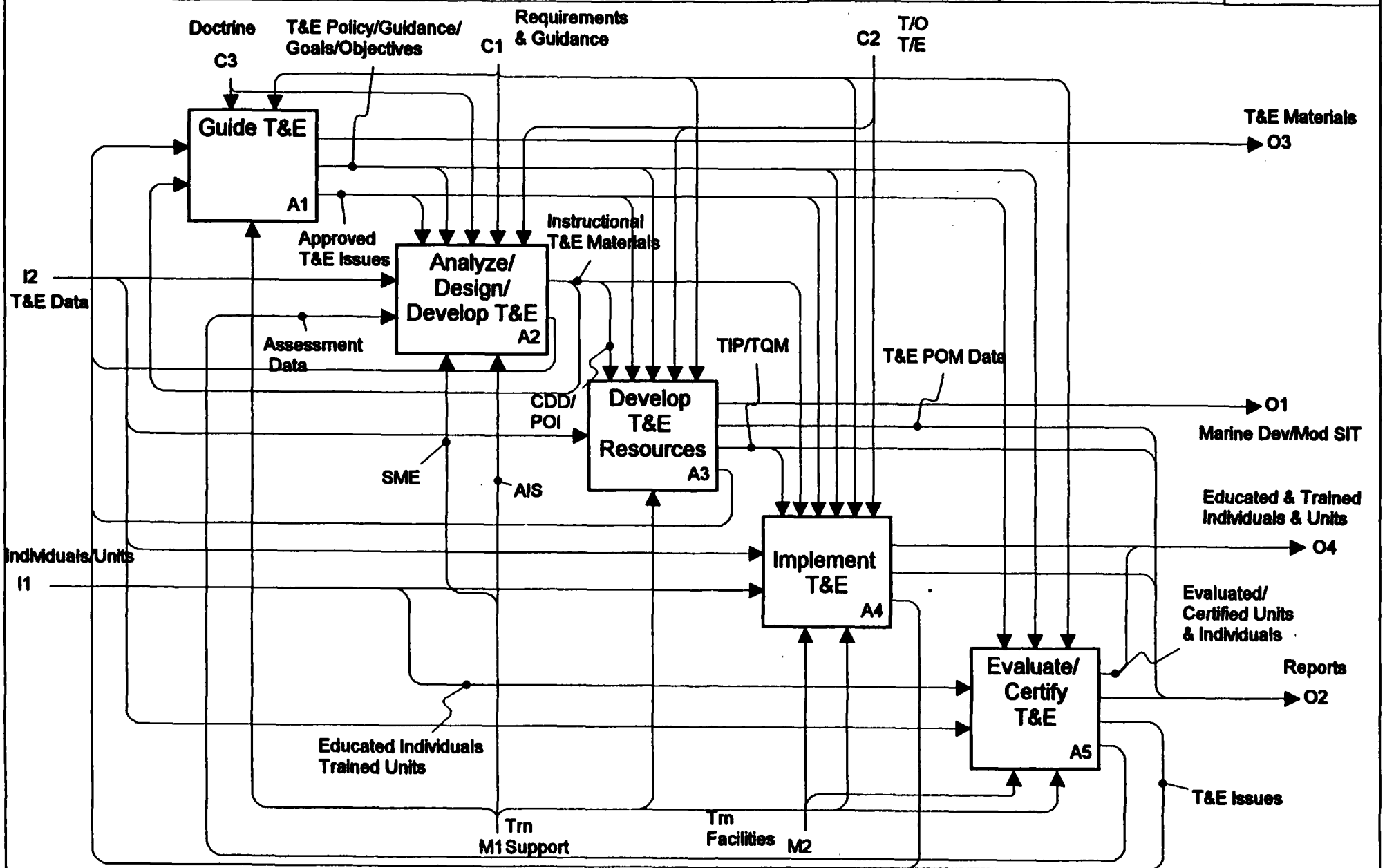

NODE: A0	TITLE: Dev/Modify/Conduct Training & Education	VIEWPOINT: T&E Program Manager

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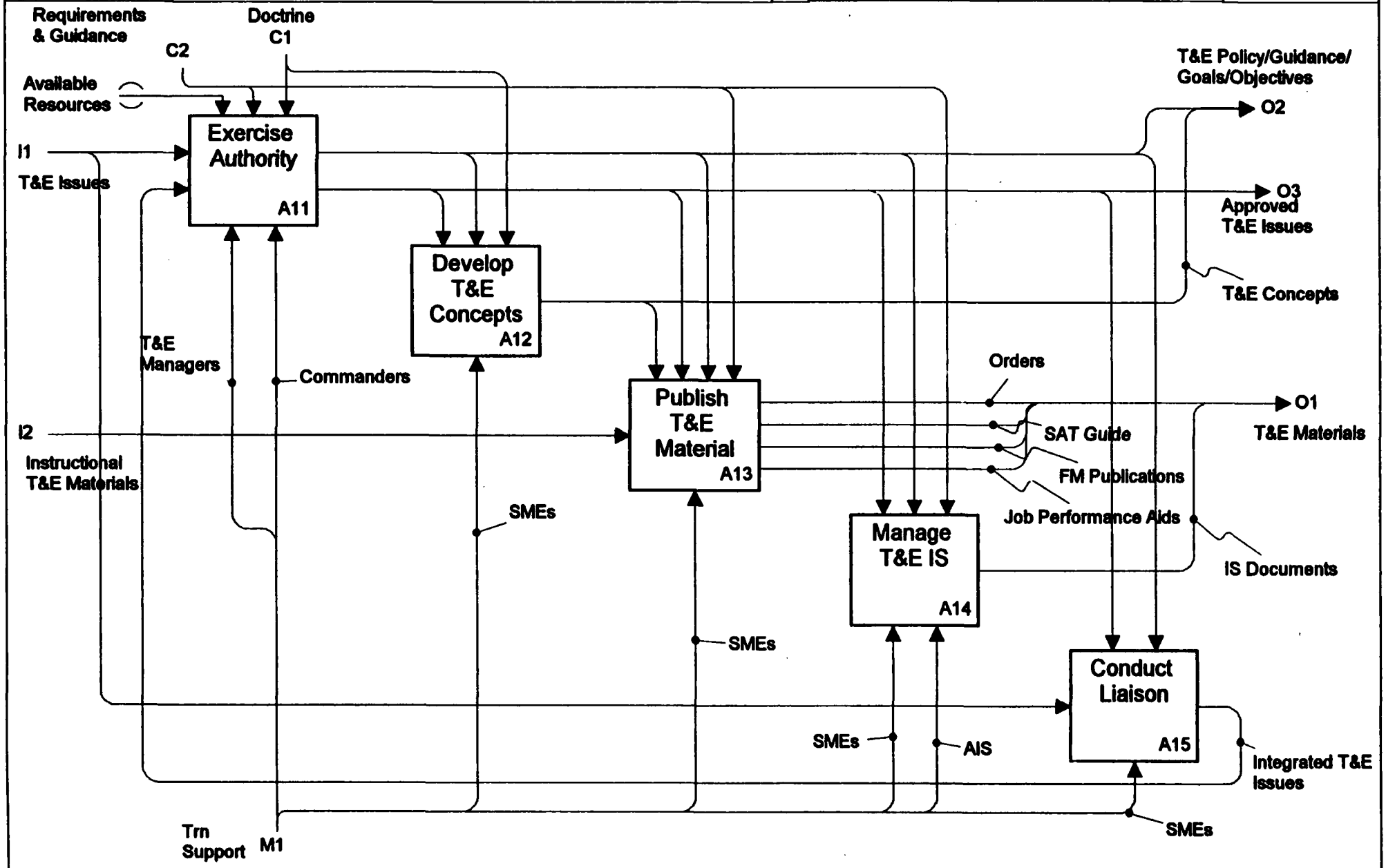

NODE: A1	TITLE: Guide T&E	VIEWPOINT: T&E Program Manager

A1: GUIDE TRAINING AND EDUCATION

Overall responsibility for Marine Corps training is vested in the Commandant of the Marine Corps with the Commanding General, Marine Corps Combat Development Command (CG MCCDC)/Commanding General Marine Corps Schools having the responsibility for developing and implementing policies, procedures, programs, standards, and evaluation for Marine Corps training.

Commanding Generals of Marine Forces Atlantic (MARFORLant) and Marine Forces Pacific (MARFORPac) and CG MARRESFOR are responsible for planning, conducting, and evaluating all individual and collective training within their organizations.

CG, MARSCHOOLS at bases/installations effect direct liaison with CG, MARSCHOOLS (C 46) for all aspects of the design, development, implementation, and evaluation of formal courses of instruction under their cognizance.

Installation commanders are responsible for coordinating support activities and developing training plans for tenant units. In addition, major installation commanders develop local training resource assistance centers and learning resource center (LRCs) to assist and support unit/tenant trainers.

Major subordinate commanders in the divisions, aircraft wings, and force service support groups are responsible for providing trained Marines and Marine units to MAGTF commands: MEUs, MEBs, and MEFs. They are resource advocates and sponsor and coordinate MAGTF team training with combat support and combat service support commands.

Battalion, squadron, and separate company commanders are the principal training managers. Based on mission guidance from higher headquarters, and upon available training resources, they are responsible for developing training programs designed to prepare their units to successfully meet or surpass the standards of performance required to accomplish tables of organization (T/Os) and/or operational missions.

Company level commanders implement training plans and prepare their units to perform successfully T/O and/or operational missions. Their responsibilities include providing specific instructions for subordinate trainers to assist them in preparing and conducting training.

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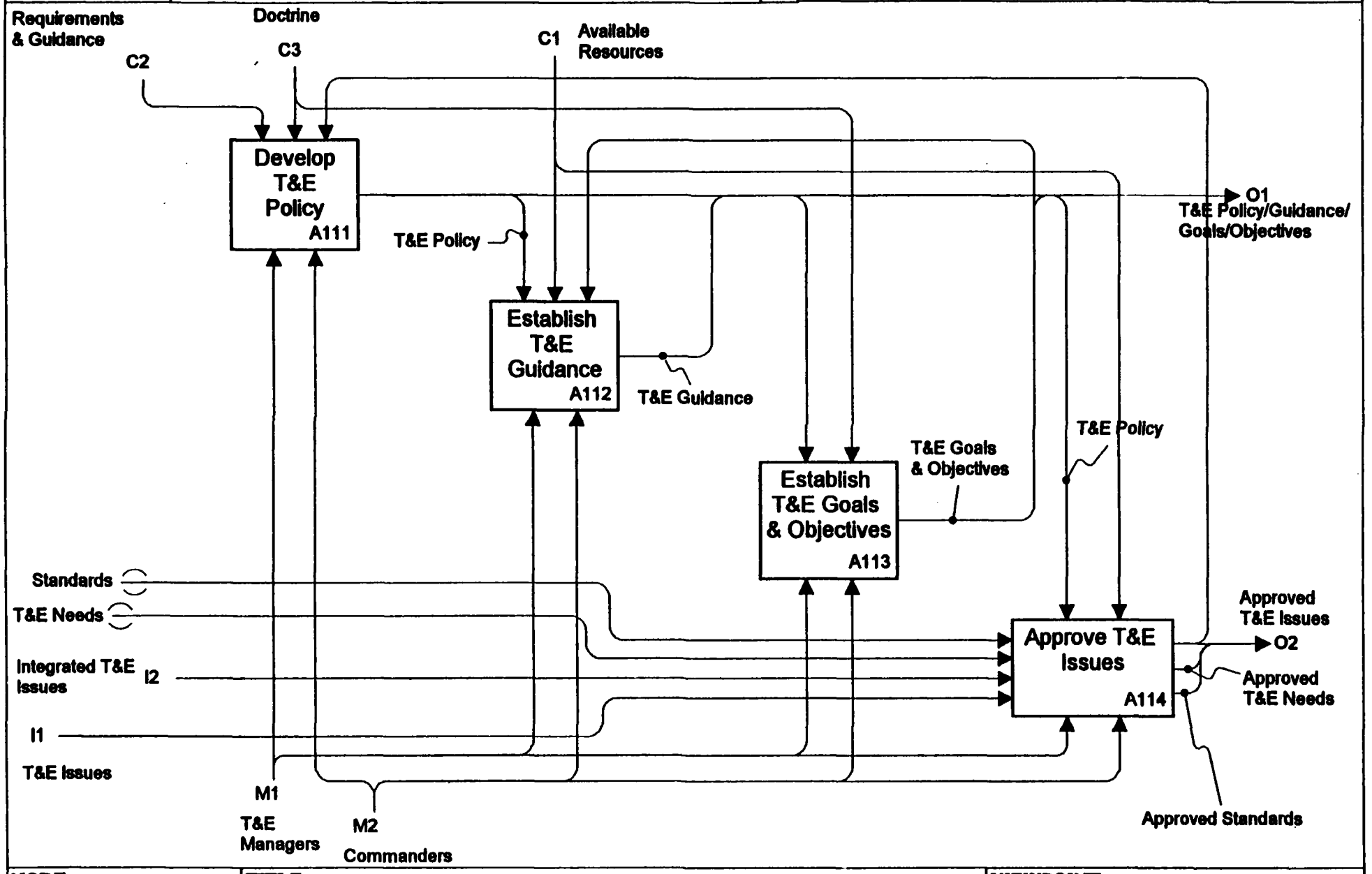

NODE: A11	TITLE: Exercise Authority	VIEWPOINT: T&E Program Manager

A11: Exercise Authority

The exercise of authority in fulfilling training and education responsibilities can occur at any level in the organization. This set of processes establishes the course for the development, implementation and modification of training and education in the Marine Corps.

A111 Develop T&E Policy

The basis for developing T&E policy primarily comes from two external sources: Evolved Integrated Requirements & Guidance and Doctrine. The Combat Development Process (CDP) is a process which formulates battlefield requirements and produces combat ready MAGTFs based on fundamental concepts supported by interdependent systems for development of doctrine, training, organization, equipment, education, facilities and support. Elements of the Marine Corps CDP integrate higher level requirements and guidance and provide the Training and Education establishment with the requisite framework to carry out its mission.

A112 Establish T&E Guidance

Training guidance is published at all command levels to document the organization's long-range training plan. It is used as a ready reference for the planning, execution, and assessment of training throughout the long-range planning period. Examples of topics normally addressed in the Command Training Guidance are:

- Commanders training philosophy
- Mission essential task list
- Combined arms training
- Major training events and exercises
- Leader training
- Mandatory training
- Standardization
- Training evaluation and feedback
- New equipment training
- Resource allocation.

A113 Establish T&E Goals and Objectives

Goals and objectives are established at all levels of the T&E process and provide the Commander with a basis for training management. The Marine Corps training goal is to attain and maintain the state of operational readiness required to conduct combat or other operations in accordance with assigned missions. The primary objective is to have training be as realistic as possible under simulated combat conditions.

A114 Approve T&E Issues

A T&E issue is any item with training and education application that requires approval or further staffing/analysis/evaluation.

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A12: Develop T&E Concepts

T&E concepts are general training and education notions, thoughts or understanding derived from specific instances or occurrences. They include general Marine Corps training philosophy and principles. The Marine Corps training philosophy is: (1) Quality training in the Marine Corps must be a way of life; (2) Training is a professional and moral imperative; (3) The battlefield fixes the directions and goals of training; and (4) Train as you fight.

A13: Publish T&E Material

The T&E process develops and promulgates a significant amount of training and educational material. This material includes Marine Corps Orders, Instructional Materials, Training Plans, Correspondence Courses, Guidebooks, Job Aids, and other manuals and publications.

A14: Manage T&E IS

Information management is critical to the conduct of effective training and education. There are over 40 sources of information that directly impact T&E. **The quality of data varies from very good to poor and utilization is inconsistent within the CDP.** *Management of T&E data is an improvement opportunity area.*

A15: Conduct Liaison

Liaison may be performed at any level outside the immediate area of responsibility or authority of an individual or unit. Liaison may involve other Services, other organizations within the Marine Corps, or other individuals within the same organization.

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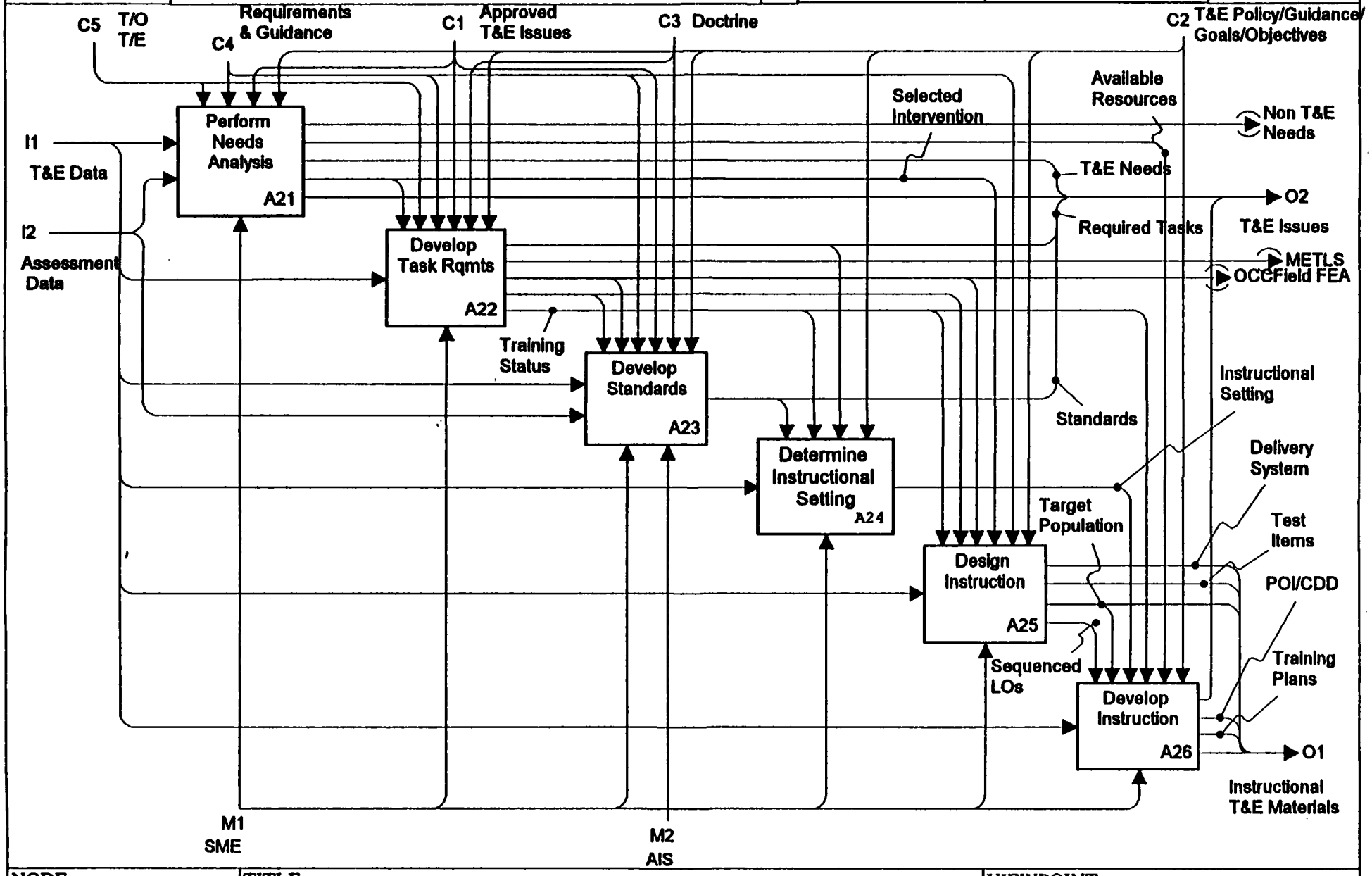

NODE: A2	TITLE: Analyze/ Design/ Develop T&E	VIEWPOINT: T&E Program Manager

A2: ANALYZE/DESIGN/DEVELOP T&E

This set of processes defines three phases of the Systems Approach to Training (SAT) - analyze, design, and develop. This is a critical set of processes because the data obtained here form the basis for the entire instructional process. The Analyze Phase is concerned with analyzing training needs to determine if the need is primarily a skill, resource, or other requirement.

For individual Training, determining required skills and what the job holder must know or do is accomplished using a systematic research process called Front-End Analysis (FEA). FEA involves the identification, collection, collation and analysis of job performance data and results in a comprehensive list of tasks and performance requirements for instructional development. FEA consists of: Job analysis (development of task requirements); task analysis (development of standards); and determination of instructional setting.

For unit training, the unit mission is analyzed to determine what needs to be done and whether or not individuals and units in the organization are organized and/or trained to carry out the mission. A training program is designed and developed to ensure that the mission can be accomplished.

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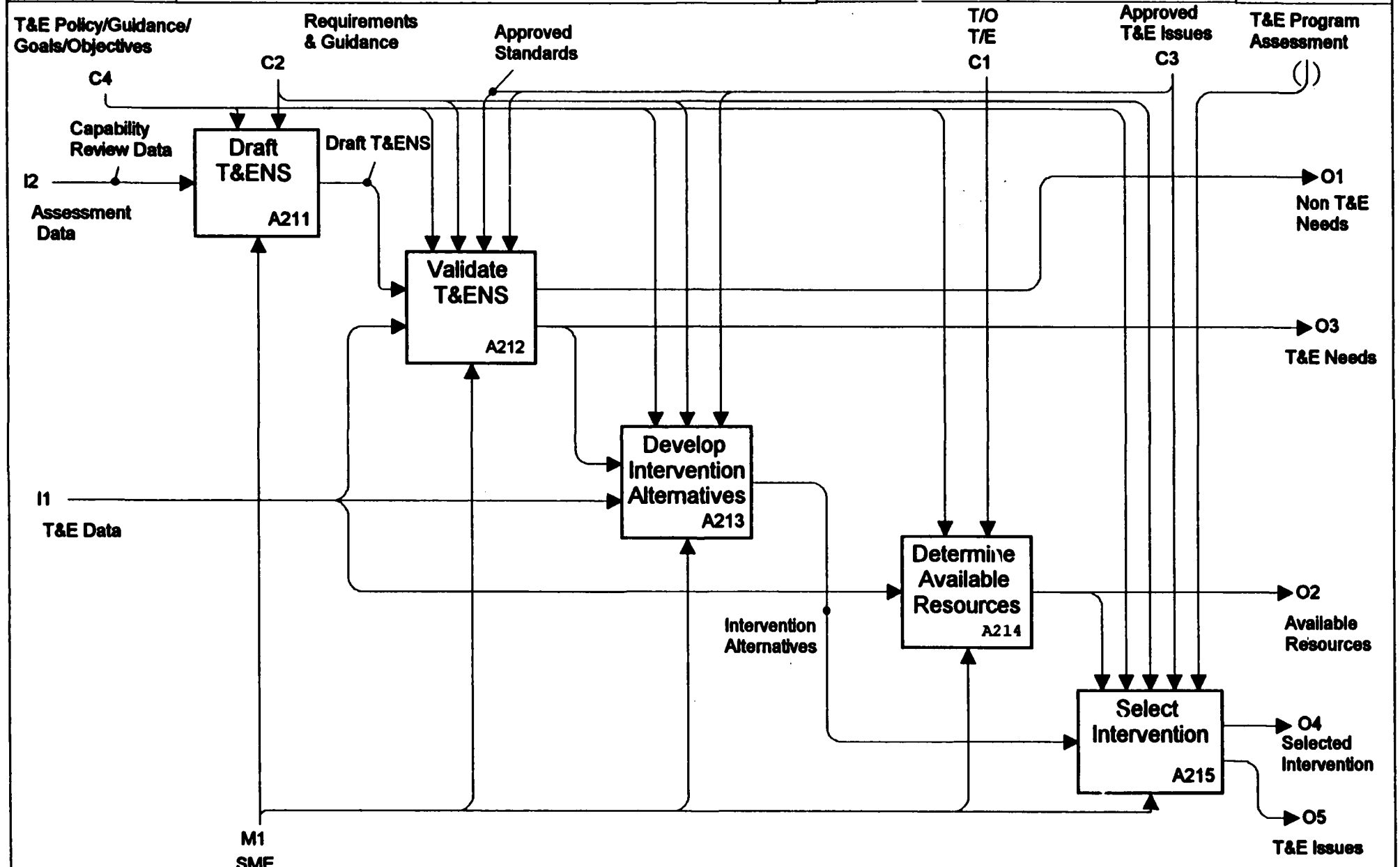

NODE: A21	TITLE: Perform Needs Analysis	VIEWPOINT: T&E Program Manager

A21: Perform Needs Analysis

Perceived needs enter the system in many different manners. A Fleet Operational Needs Statement (FONS), Marine Corps Lessons Learned (MCLLS), directions from senior officers, or any other method of identification all will cause a perceived need to be acted on within the Training Development Process (TDP). The perceived need may be identified through the Capability Review System.

A211 Draft T&E Needs Statement

Based on external requirements and guidance and T&E policy/guidance/goals and objectives a Training and Education Needs Statement is developed using T&E assessment feedback data to document and quantify the need.

A212 Validate the T&E Needs Statement

The perceived T&E need may not require development of new skills or application of additional T&E resources. The need may be solved by changes in non-T&E policies and procedures or other factors outside the T&E process. Validation consists primarily of determining if a perceived need is a T&E need.

The T&E Needs Statement approval process is delineated in MCO P3900.15, Marine Corps Combat Development Process. It states that the T&E Needs Statements will be forwarded to the ACMC for approval.

A213 Develop Intervention Alternatives

The term "intervention" is used to indicate a solution. A plan is developed by the appropriate staff agency, with appropriate input from the FMF and/or the supporting establishment, to correct a validated deficiency. This plan may consist of the purchase of new equipment, or providing additional training, of altering the present methods of training, or any other viable means of correcting the need.

A214 Determine Available Resources

All available resources must be used to the maximum extent possible. Available resources must be applied only to the most critical needs. All the costs associated with training must be identified, i.e. facilities, available ranges, etc. To the extent possible, commanders lock in resources before publishing training plans. Common sources for resource information include:

- Command operating budget
- Flying Hour Program
- Ammunition authorizations
- Fuel allocations
- Higher headquarters training plans
- Local directives on training areas and facilities.

A215 Select an Intervention

Based on available resources and costs vs. expected benefit the most viable intervention is selected. During both long- and mid-range planning, constrained resources may require deletion of low-priority training requirements, substitution of less costly training alternatives, or requests to higher headquarters for additional resources.

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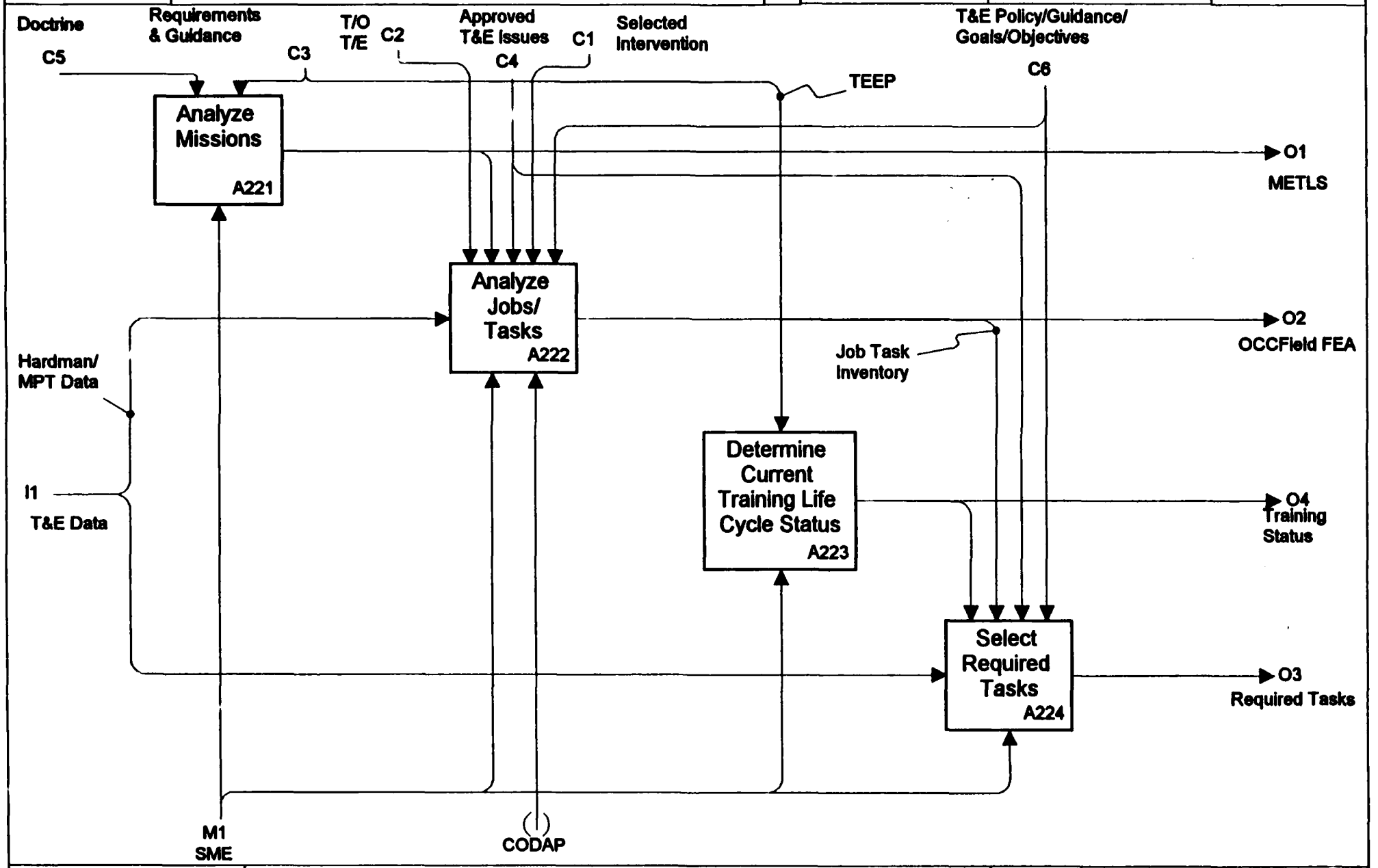

NODE: A22	TITLE: Develop Task Rqmts	VIEWPOINT: T&E Program Manager

A22: Develop Task Requirements

Task requirements are developed by analyzing missions, jobs and tasks to determine what skills are required, determining the status of the unit or individual in its training life-cycle, and selecting tasks for instruction.

A221 Analyze Missions

Peacetime training requirements focus on a unit's combat mission. Focusing on combat requirements recognizes that proficiency cannot be achieved on every training task. However, commanders can achieve a successful training program by consciously narrowing the focus to a reduced number that are essential to mission accomplishment. These tasks make up the Mission-Essential Task List (METL). Missions can be derived from a number of sources.

- Doctrinal publications
- T/O (including missions of supported/supporting elements and supplemental missions)
- Higher headquarters orders
- Operations and contingency plans
- Requirements of supported units
- Local installation directives.

There are two primary inputs to METL development: Combat plans and external taskings.

(1) Combat plans. The most critical inputs to METL development are the organizations potential combat operations and contingency plans. The missions and related information provided in these plans are key to determining essential training tasks.

(2) External Taskings. External taskings are additional training tasks that indirectly relate to an organization's combat mission. Some examples are:

- Reserve training support
- Naval Reserve Officers' Training Corps support
- Very important person visits
- Disaster relief efforts.

All organizations from force to battalion/squadron level prepare METLs. Command groups and staff elements at each level develop METLs to address mission-essential tasks in their areas of responsibility. Each organization's METL is approved by the next higher commander in the operational chain of command. Command group METLs are approved by the commander. Staff METLs are approved by the organization's commander or chief of staff.

(Although FMFM 0-1 discusses Mission Essential Tasks List (METL), the concept was not widely understood or practiced by those interviewed during this project).

A222 Analyze Jobs/Tasks

MCCDC (C 461) collects, examines and synthesizes data regarding each Occupational Field/Military Occupational Specialty (OccFld/MOS). These data may include time in grade and MOS, career progression, tasks performed on the job, instructional location, level of instruction, etc. Job analysis is the collection and organization of data which results in a clearly defined description of duties, tasks and indicative behaviors that define that job. Job analysis involves finding out exactly what the job holder does on the job rather than what the job holder must know to perform the job.

Job analysis begins once a requirement for instruction has

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been identified and validated. Job analysis requirements are generally generated by:

- Introduction of new or better weapon/support systems;
- Organizational changes such as changes in MOS structure and career field realignments;
- Doctrinal changes required by new laws, Department of Defense (DoD) requirements, and Marine Corps needs;
- Evaluations/revisions indicating that a change in instruction is required;
- Direction from higher headquarters.

A223 Determine Current Training Life-Cycle Status

Collective and individual proficiency is a good basis for estimating future training needs, even though a unit may experience large personnel turnover. Personal observation is the most effective way to determine unit proficiency. This involves watching trainer presentations, field training, and day-to-day mission accomplishment. A commander can also review recent records, reports, and other written sources of unit proficiency. Some written sources of unit proficiency include:

- Staff visit reports;
- Inspector general inspections;
- MCCRES;
- Exercise after-action reports;
- Personnel/administrative reports;
- Maintenance/logistical evaluation/technical inspection results;
- Naval Audit Service/General Accounting Office Reports;
- Physical fitness test scores;
- Weapons qualification records;
- Field Supply and Maintenance Analysis Office (FSMAO) inspections.

(This information comes from para 6004 of FMFM 0-1. Several paragraphs in FMFM 0-1 and 0-1A refer to evaluation. Some are confusing and others contradictory. For the most part, standards-based evaluations rather than subjective judgment are encouraged. In addition, the Marine Corps order on training and education evaluation (MCO 1553.5) is geared more to instructional evaluation and less to evaluation of and within units. In general, how units and individuals within units are evaluated needs to be more clearly defined).

A224 Select Required Tasks

The next step involves defining current instructional needs by selecting those specific tasks which need to be instructed. Some tasks may not be taught because they are relatively simple to perform, are seldom performed, or only minimum job degradation would result if the tasks were not performed. To properly select tasks for instruction, MCCDC (C 461) collects data on several criteria relating to each task. This is accomplished through administration of a survey questionnaire sent to job incumbents and SMEs. The data collected represents the judgement of a large group of job incumbents and SMEs who are familiar with the job. The responses to the survey are analyzed using statistical analysis procedures.

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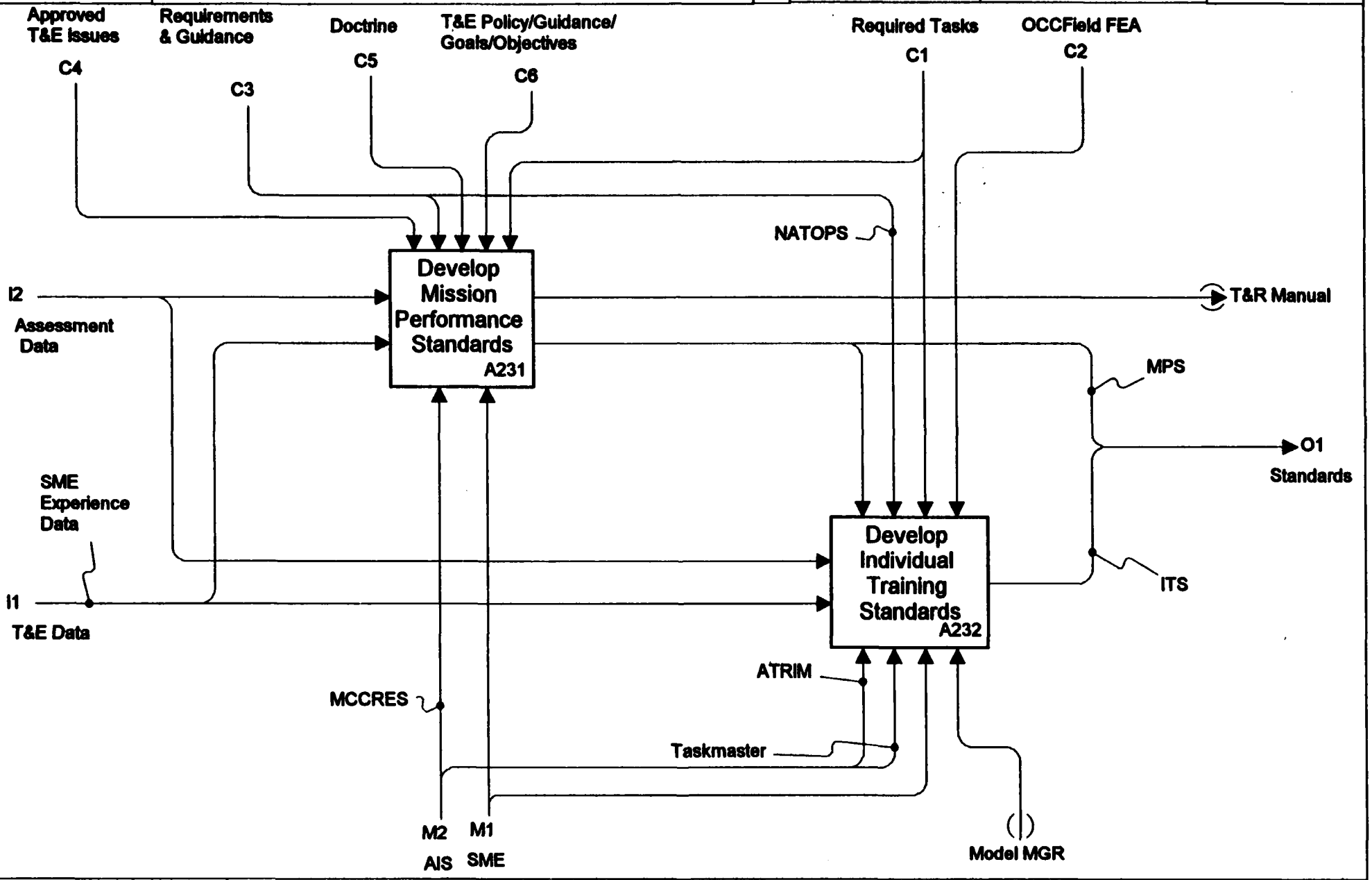

NODE: A23	TITLE: Develop Standards	VIEWPOINT: T&E Program Manager

A23: Develop Standards

Training standards establish the tasks that units and individual Marines are expected to perform, define proficiency, and serve as a means of diagnosing training deficiencies. All training standards are derived from specific mission requirements and developed using current doctrine.

A231 Develop Mission Performance Standards

Collective training standards are measures of unit mission performance and are published as Mission Performance Standards. These standards are derived from and developed by incorporating current doctrinal techniques and procedures. MPSs prescribe the specific tasks that a unit must be capable of performing in order to execute a particular mission. They should be closely aligned to mission essential tasks.

MPSs are currently developed considering the unit as a point of reference. This creates a problem when MPSs are reconciled with mission essential tasks. The process could be improved if MPSs were aligned to MAGTF elements. MAGTF missions should drive METL development which in turn should drive MPS development.

A232 Develop Individual Training Standards

Once a task is finalized, performance requirements must be developed for every task selected for instruction. Performance requirements for all occupational field specialties (OccFld) are defined by Individual Training Standards (ITS). ITSs are the basis for all individual instruction in units and in formal schools/training centers. In the absence of an approved ITS task list, the school will coordinate with MCCDC (C 461) for guidance prior to continuing with analysis. The ITSs appear as tasks in the Course Descriptive Date (CDD) of a Program of Instruction (POI).

ITSs specify measures of performance that are to be used in analyzing individual performance and evaluating individual instruction. ITSs are developed using the same procedures as used to generate a task list. A working group conference composed of subject matter experts (SME) is particularly effective for examining how a task is to be completed by identifying the performance steps and the sequence of those performance steps, conditions and standards necessary to successfully accomplish the task.

The ITSs are developed and published within the Individual Training Standards System (ITSS). The intent of this system is to ensure that all Marines within a given grade for a particular MOS are trained to perform the same tasks to a standard level of proficiency. Most ITSs are derived from the MCCRES MPSs and prescribe those individual tasks that a Marine must be able to perform (within MOS/grade) in order for the unit to successfully execute MPS.

(Definitions of individual training standards, collective training standards and mission performance standards differ among various Marine Corps orders and the Systems Approach to Training Guide. For purposes of this document, the definitions contained in the Marine Corps order titled, "The Marine Corps Training and Education System (MCO 1553.1B) apply. No evidence could be found to substantiate the statement contained in the SAT Guide that most ITS's are derived form MCCRES MPS's).

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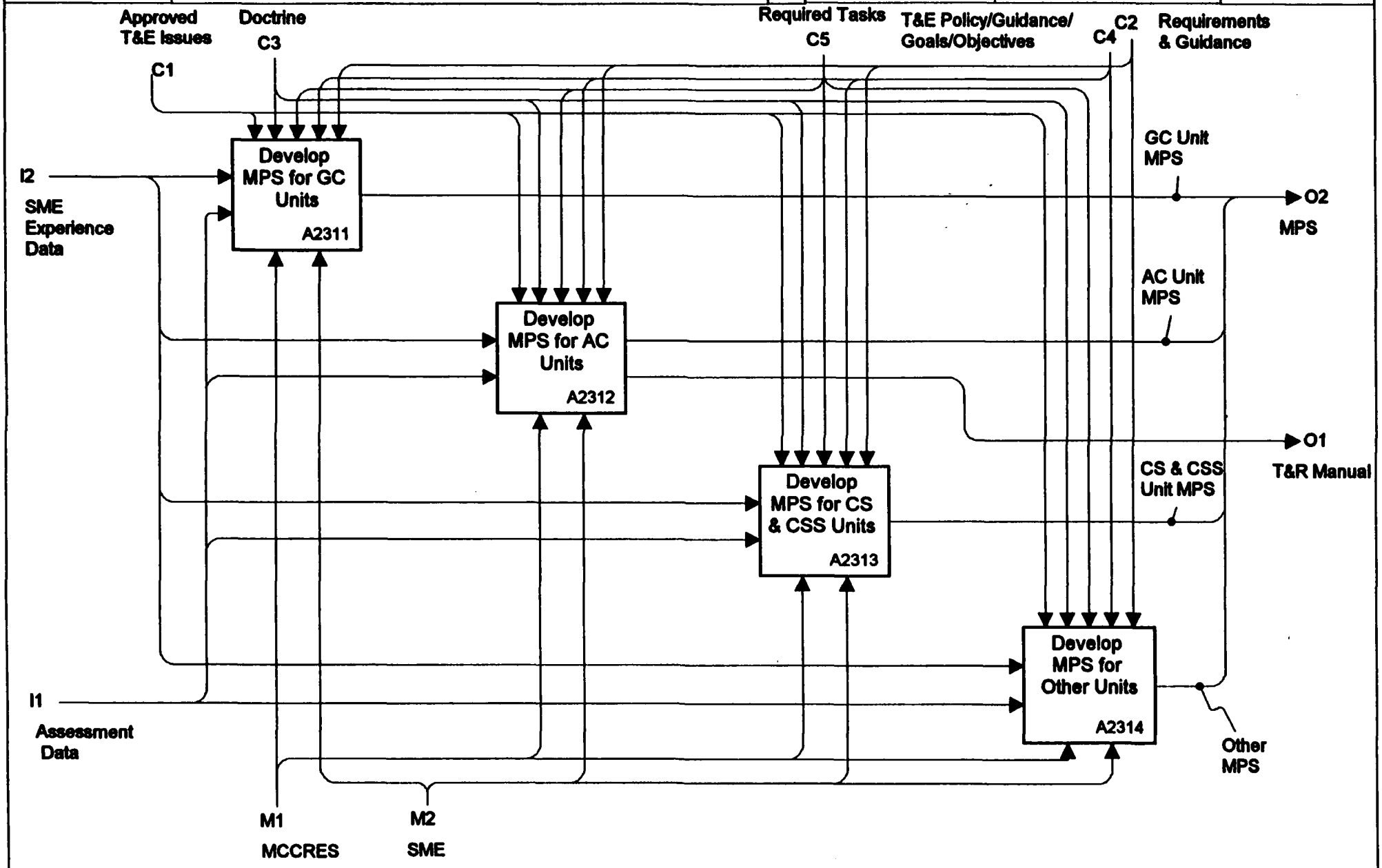

NODE: A231	TITLE: Develop Mission Performance Standards	VIEWPOINT: T&E Program Manager

ELECTRONIC FILE NAME: G1 .IDD	AUTHOR: IBES, Inc.; SSI, Inc. PROJECT: MCTRSS PROJECT OFFICER: Capt. A.V. Scott, USMC NOTES: 1 2 3 4 5 6 7 8 9 10	DATE: 10/8/93 REV DATE: 01/06/94 REV NO:		WORKING	READER DATE	CONTEXT:
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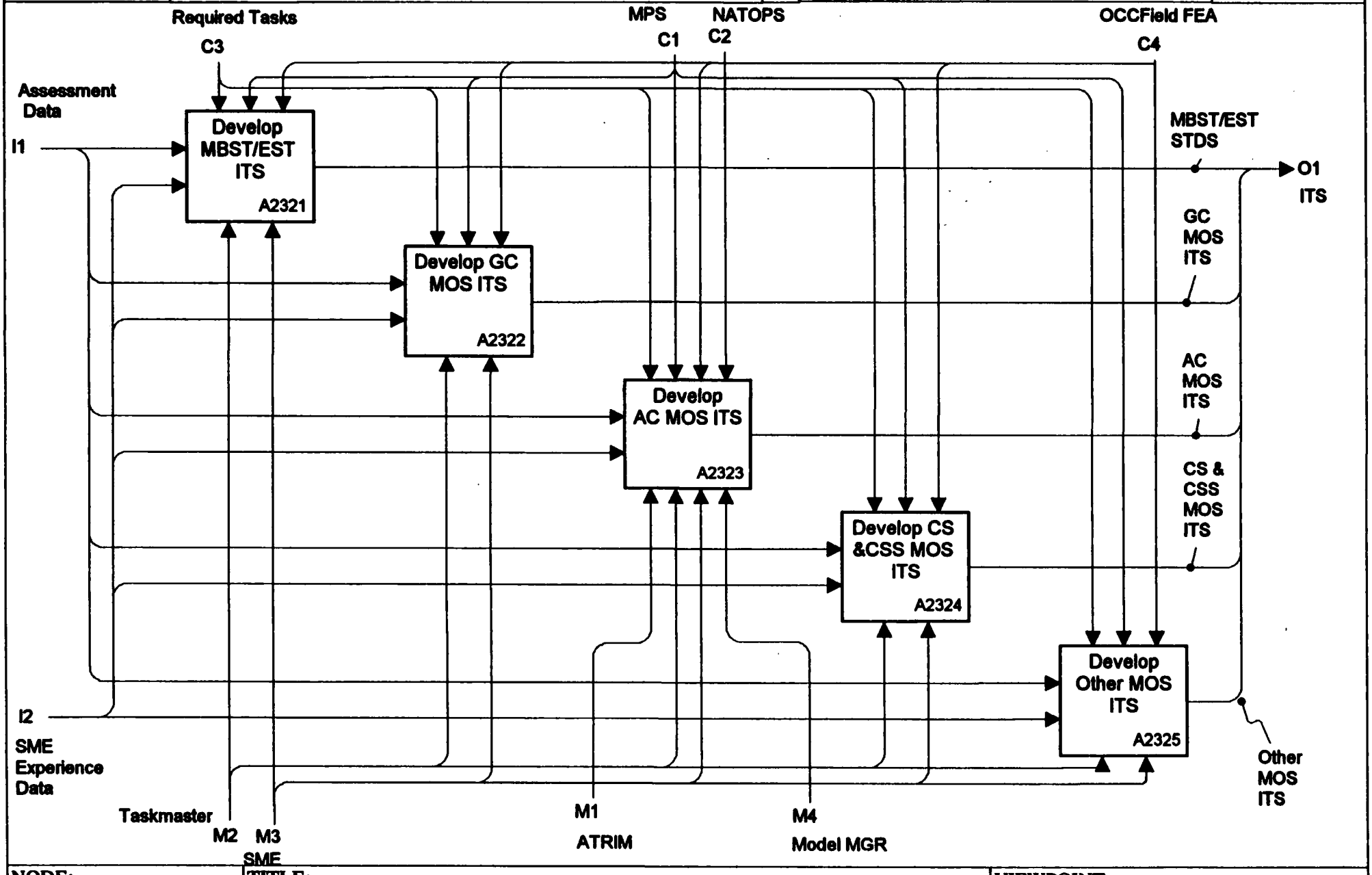

NODE: A232	TITLE: Develop Individual Training Standards	VIEWPOINT: T&E Program Manager

ELECTRONIC FILE NAME: G1 .IDD	AUTHOR: IBES, Inc.; SSI, Inc. PROJECT: MCTRSS PROJECT OFFICER: Capt. A.V. Scott, USMC NOTES: 1 2 3 4 5 6 7 8 9 10	DATE: 10/8/93 REV DATE: 01/06/94 REV NO:		WORKING	READER DATE	CONTEXT:
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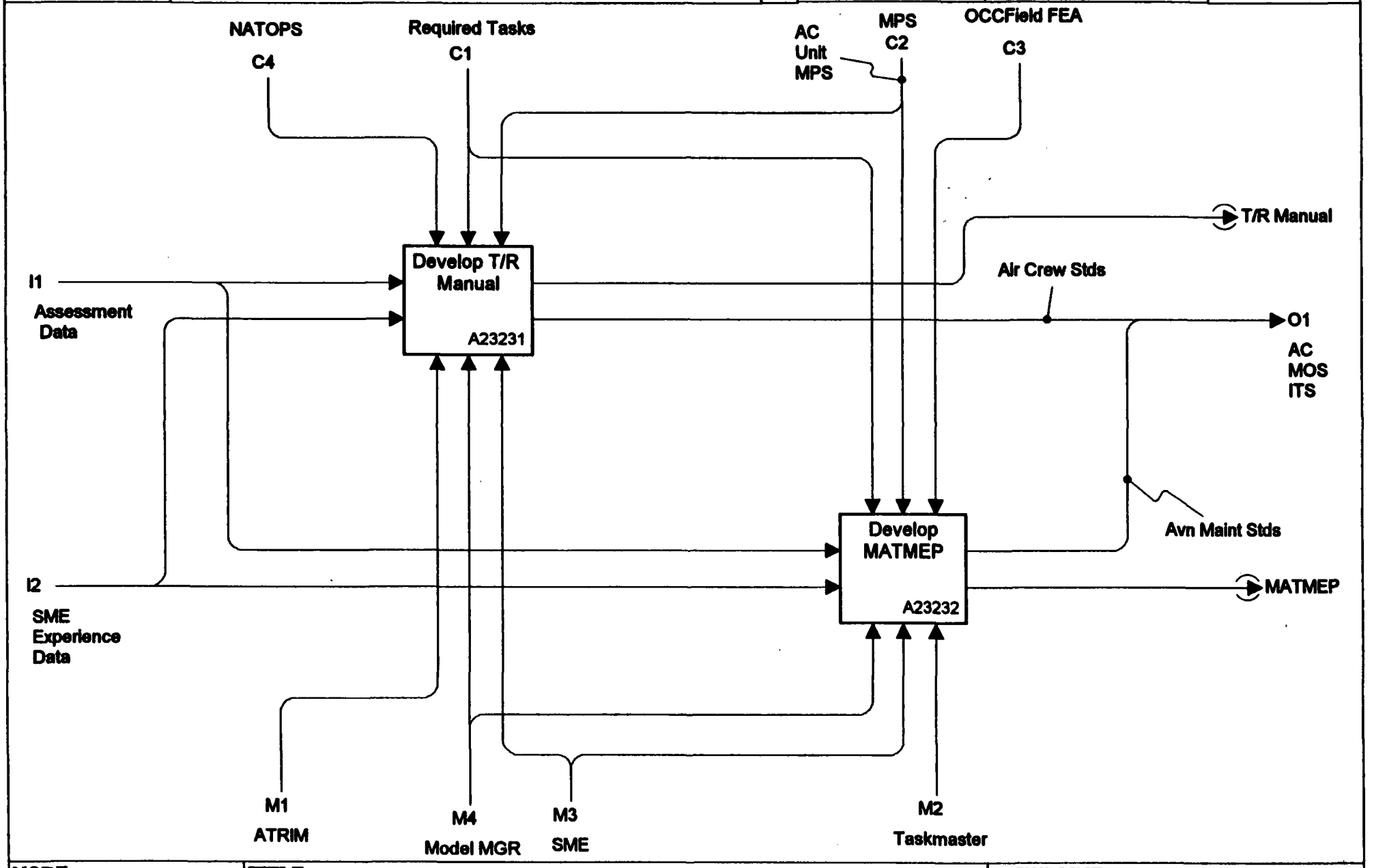

NODE:	TITLE:	VIEWPOINT:
A2323	Develop AC MOS ITS	T&E Program Manager

A24: Determine Instructional Setting

The final process in the Analyze Phase involves determining the instructional setting for each training task behavior. Instructional setting is important because it defines who is responsible for instructing the task and the level of proficiency that must achieve when performing the task in an instructional environment.

For Individual Training Standards, MCCDC (C461) is responsible for determining the organization responsible for conducting instruction and the level of instruction assigned to each task. This is accomplished after ITSs are developed because the ITS performance steps, conditions, and standards reveal information that aids the decision-making process for determining instructional setting.

The same is essentially true for Collective Training Standards. Unit commanders are responsible for determining types of exercises and environments where skills can best be learned and measured.

ELECTRONIC FILE NAME: G1 .IDD	AUTHOR: IBES, Inc.; SSI, Inc.	DATE: 10/8/93		WORKING	READER DATE	CONTEXT:
	PROJECT: MCTRSS	REV DATE: 01/06/94		DRAFT		
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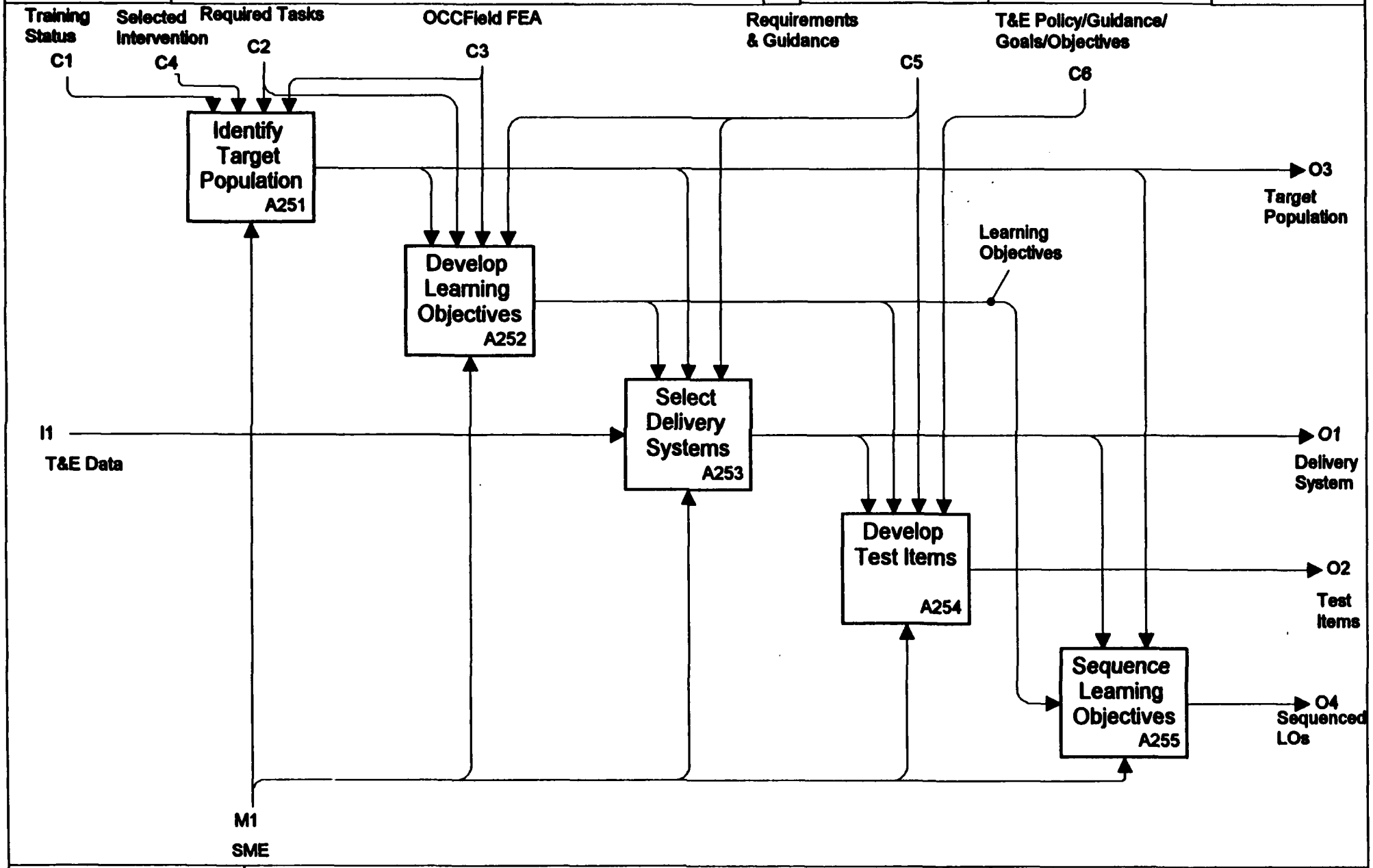

NODE:	TITLE:	VIEWPOINT:
A25	Design Instruction	T&E Program Manager

A25: Design Instruction

The Design Phase translates Individual Training Standards (ITS) into behaviors that will be performed in the instructional setting. Instructional designers must maximize transfer of learning by creating an instructional plan in which the ITS task behavior, students' abilities, delivery system (methods and media) features, and resource constraints are carefully considered. The elements of instructional design are target population description (TPD), learning analysis, terminal learning objective/enabling learning objective (TLO/ELO), test items, delivery system (method/media), and sequenced learning objectives.

A251 Identify Target Population

The target population description (TPD) is a summary of physical, administrative, and academic prerequisites that students should possess prior to assignment to a formal course of instruction. Specifically, the TPD describes the population for whom the course is intended, gives a generic description of the average student, and includes characteristics or prerequisites (academic, administrative, or physical capabilities) of the entering student population.

A252 Develop Learning Objectives

The purpose of a learning analysis is to take each Individual Training Standard (ITS) from a real-world task and develop it into a behavior that is appropriate for the instructional environment. Ideally, the school, training center or unit delivers instruction that duplicates the real world; however, this is not always possible due to numerous limiting factors, such as time, safety, cost and availability of resources.

A253 Select Delivery System

The selection of a delivery system is the primary means of determining how instruction is presented to the student. The delivery system includes the instructional method and the media used to present the instruction. A delivery system serves to facilitate effective and efficient instruction to a group of students. Instruction is effective when it provides a foundation for enabling mastery of learning objectives and efficient when it utilizes resources and funding in a cost-effective manner that makes the best use of training time. The instructional method and media together contribute to the smooth flow of information to the students and support the transfer of learning.

A254 Write Test Items

Because learning objectives explain exactly what the student must do, how well it must be done and under what conditions, the associated test items are written at the same time. Testing is critical to maintaining or improving the effectiveness of instruction by determining if learning objectives have been met.

A255 Sequence Learning Objectives (LO)

The purpose of sequencing learning objectives is to ensure that instruction promotes learning of each LO by placement in optimum relationship to other course content prior to developing instructions.

ELECTRONIC FILE NAME: G1 .IDD	AUTHOR: IBES, Inc.; SSI, Inc.	DATE: 10/8/93		WORKING	READER DATE	CONTEXT:
	PROJECT: MCTRSS	REV DATE: 01/06/94		DRAFT		
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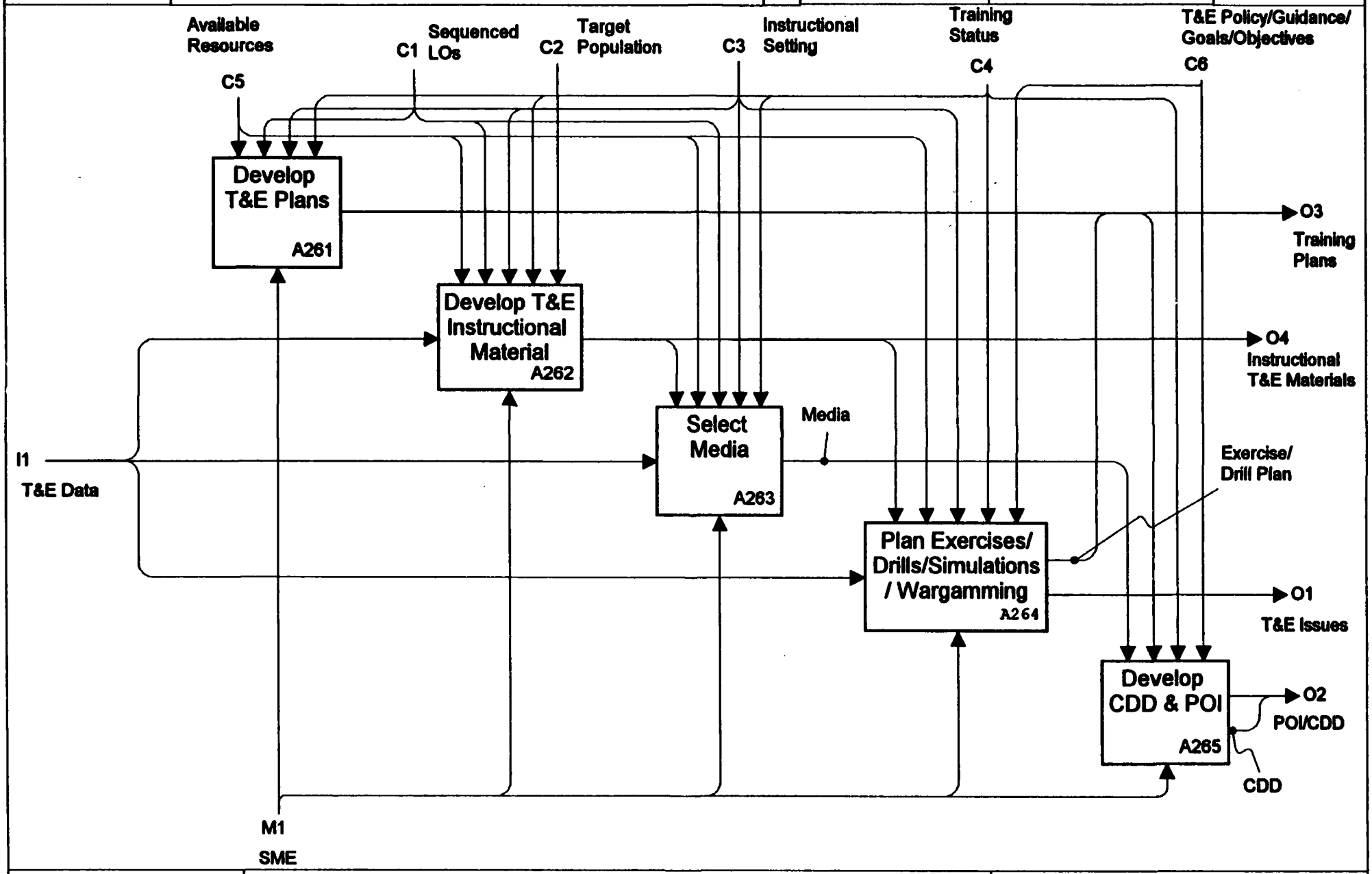

NODE:	TITLE:	VIEWPOINT:
A26	Develop Instruction	T&E Program Manager

A26: Develop Instruction

During the Develop Phase, the instructional program is developed and/or modified to meet the requirements identified during the first two phases. The course schedule, concept card, lesson plans, Course Descriptive Data (CDD), and Program of Instruction (POI) may actually be developed concurrently and in draft form. After instructional materials are validated and after the CDD is approved by CG, MCCDC, the schedule, POI, and other documents can be revised and put in final form.

A261 Develop T&E Plans

Training Plans are mid and long range planning documents that identify objectives, requirements, and actions for accomplishing either individual or unit training and education.

Unit training plans often are not executed because of the high OPTEMPO. A Marine Corps TEEP may assist in providing a more stable environment for unit training. More emphasis on developing executable training plans and increased support from staff/headquarters organizations, is needed.

A262 Develop Instructional Material

The purpose of developing instructional material is to generate the lesson plans and material that will teach students the knowledge and skills necessary for performing the learning objectives.

A263 Develop Media

The purpose of developing instructional media is to enhance the transfer of learning by presenting instruction that appeals to many senses, while contributing to the smooth flow of information to the students. A visual medium (e.g. a chart, film or photograph can increase the meaningfulness of the material to the student and stimulate student interest. The media selected are developed to complement the target audience's comprehension level while maintaining relevance to the learning objectives and instruction presented. When developing media, there are general considerations for all types of media and specific considerations for particular media that must be addressed by the instructional developer.

A264 Plan Exercises/Drills/Simulations/Wargamming

Unit training situations consist of drills, exercises, simulation, and wargames. Training exercises combine individual skills, leader skills,drills, and weapon system proficiency. Exercises reinforce and sustain proficiency in individual and collective skills in units. In addition, exercises provide training on collective tasks and integrate all elements of the combined arms team.

A265 Develop CDD and POI

Every Marine Corps formal course of instruction must have an approved Program of Instruction (POI). A POI documents a formal school's plan for instructing Individual Training Standards (ITS). Specifically, a POI describes a course in terms of structure, delivery methods and media, length, intended learning objectives, and evaluation procedures. it also serves as a historical record that reflects the continual evolution of the course. An important element of the POI is the approved Course Descriptive Data (CDD) document. The CDD provides a detailed summary of the course including instructional resources, class length and curriculum breakdown. The CDD provides justification and documentation for development or refinement of formal POIs taught at Marine Corps training and education institutions.

ELECTRONIC FILE NAME: G1 .IDD	AUTHOR: IBES, Inc.; SSI, Inc.	DATE: 10/8/93		WORKING	READER DATE	CONTEXT:
	PROJECT: MCTRSS	REV DATE: 01/06/94		DRAFT		
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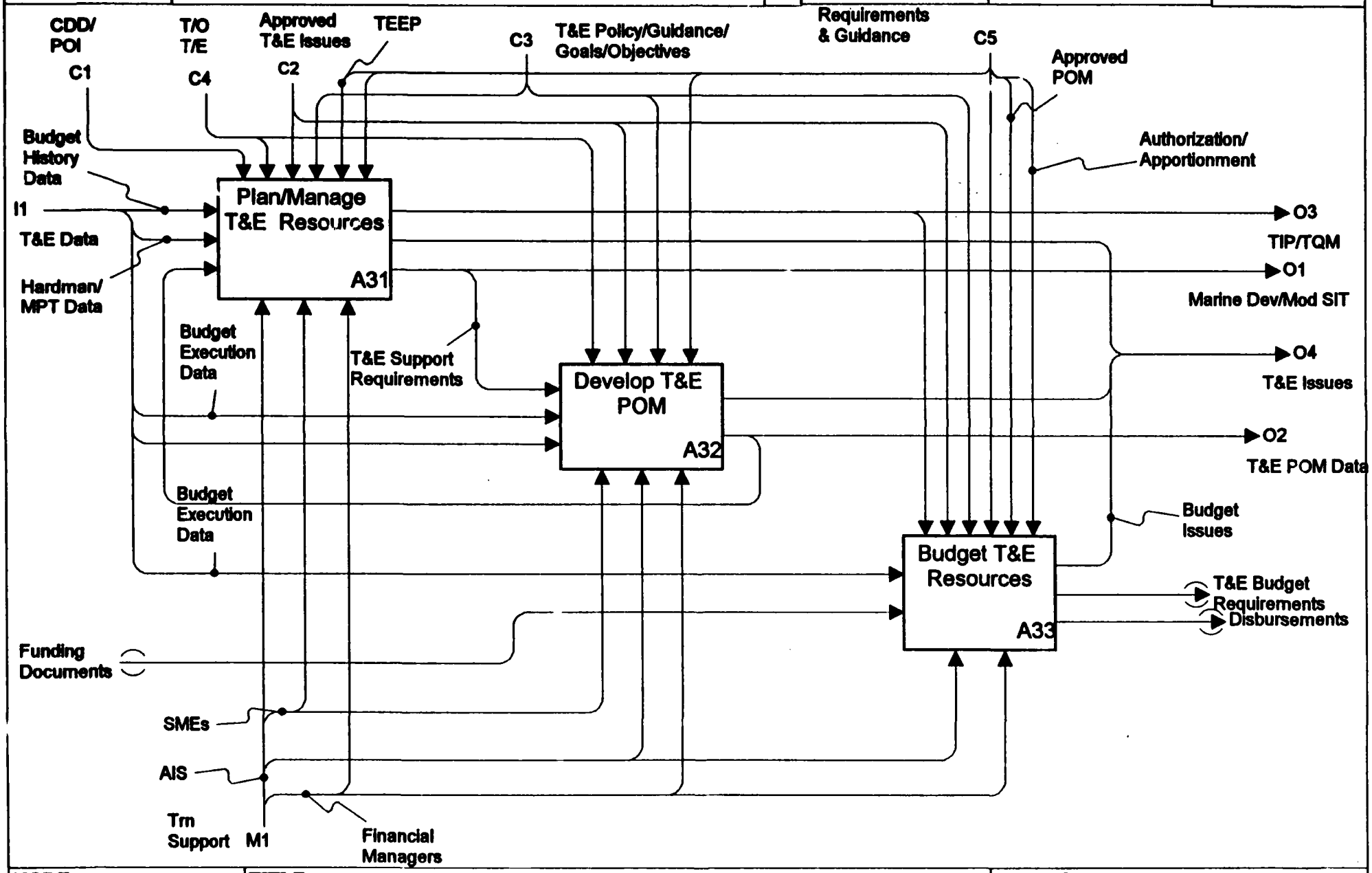

NODE:	TITLE:	VIEWPOINT:
A3	Develop T&E Resources	T&E Program Manager

A3: DEVELOP T&E RESOURCES

The primary objective of the Marine Corps Training and Education "system" is to provide an effective **and efficient** set of processes to meet Marine Corps training readiness requirements. Historically, the Marine Corps has not been successful in providing an optimum level of resources for training and education process requirements. Lower level commands are often tasked with "doing more with less". As the DoD budget Total Obligational Authority (TOA) decreases, the competition among and within the Services for the remaining resources intensify.

The current method of providing resources for training and education is consistent with the DoD and Marine Corps planning, programming and budgeting process:

Planning - Marine Corps planning is developed from the JCS Joint Strategic Planning System and is based on the Marine Corps Master Plan (MCMP), the Commandant's Planning Guidance (CPG), the Marine Corps Mobilization Management Plan (MPLAN), and the Supporting Establishment Master Plan (SEMP). The plans, threat assessments, and capability assessments identify warfighting requirements that become programming objectives.

Programming - Major external guidance affecting resource requirement determination and allocation are DoD Defence Planning Guidance (DPG), the Department of the Navy Consolidated Planning and Programming Guidance DNCPPG), and the CINC's Integrated Priority Lists (IPLs). Planning forces and fiscal guidance constraints are translated into achievable packages called Programs. Programming finds the best match between warfighting requirements and available resources.

Budgeting - Budgeting is the actual execution of plans and programs and the application of available resources.

During data collection for development of the A3 node, T&E functional managers and HQMC programming and budgeting subject matter experts felt that, in general, resource requirements for T&E programs do not compete well in the Marine Corps, Navy, and OSD POM process. They felt that the training establishment lacks an objective process that can (1) document and quantify resource deficiencies and requirements; (2) perform an assessment of training readiness based on the impact of T&E deficiencies on CINC, Navy, Marine Corps, and MAGTF mission capability requirements, unit mission essential tasks, and unit mission performance standards; and (3) prioritize requirements based on value added to training readiness.

The training equipment assessment and resourcing process shown in A3211 is based on MCMP priorities and based on value added to MAGTF missions. A similar objective process for all T&E programs would strengthen the T&E POM input.

ELECTRONIC FILE NAME: G1 .IDD	AUTHOR: IBES, Inc.; SSI, Inc.	DATE: 10/8/93		WORKING	READER	DATE	CONTEXT:
	PROJECT: MCTRSS	REV DATE: 01/06/94		DRAFT			
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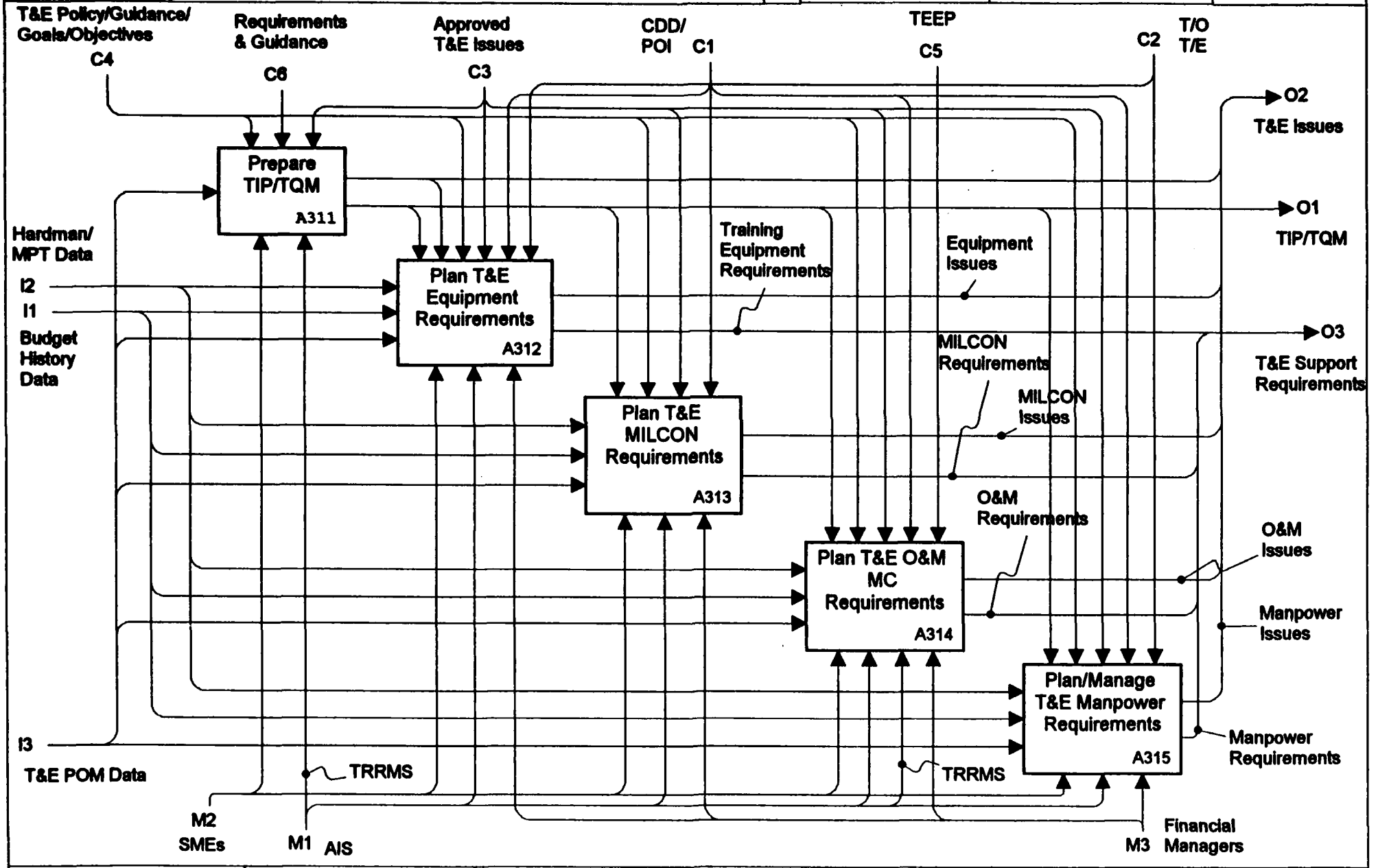

NODE: A31	TITLE: Plan/Manage T&E Resources	VIEWPOINT: T&E Program Manager

A31: Plan/Manage T&E Resources

Training and Education resource requirements are derived primarily from two sources; Marine Corps force structure and emergent requirements. The MCMP, MPLAN and SEMP lead to determination of Marine Corps force structure. Force structure identifies strength and major equipment requirements which drive manpower, equipment, and facility plans. Manpower, equipment, and facility plans must be supported by training and education plans. A deficiency is identified when the current T&E process cannot accommodate requirements.

A311 Prepare TIP/TQM

The Training Input Plan/Training Quota Memorandum (TIP/TQM) is developed to support the training and education requirements of manpower plans. The TIP identifies the number of Marines, by student type and MOS, to be trained under HQMC control. Major considerations are occupational field sponsor requirements, primary MOS requirements, other than primary MOS requirements, and other Service requirements. The Training Requirements and Resource Management System (TRRMS) assimilates these requirements and schoolhouse resource issues and produces the TIP. After the TIP is validated, the Training Quota Memorandum is prepared which is the formal authorization to conduct training. The TQM is an execution order that schedules and assigns quotas for each course of instruction. The TQM is an input to the By Name Assignment (BNA) system which assigns individual Marines to specific courses of instruction.

During discussions with subject matter experts, some individuals expressed concern that the TIP was less of a requirements plan but instead was more reflective of schoolhouse constraints. Outyear figures reflect requirements which are considered for resourcing during POM development. Execution year figures should reflect previous POM/budget decisions. When this happens, the process is in balance. The TIP will reflect requirements but the execution input reflects capacity and other constraints. The T&E Division does not have a process for validating the TIP established by M&RA and OccField Sponsors.

A312, A313, and A314 Plan T&E Equipment, MILCON, and O&M Requirements

T&E equipment, MILCON, and O&M requirements are largely the result of force structure requirements, the TIP/TQM (which itself is developed from force structure requirements), approved T&E issues (such as current deficiencies, scheduled exercise requirements, System's Command requirements, etc.), course data descriptions and plans of instruction, and tables of organization/tables of equipment. T&E resource requirements identified in the planning process compete for available resources in the programming process.

A315 Plan/Manage T&E Manpower Requirements

The T&E Division coordinates with HQMC M&RA to manage the T/Os of training organizations on a daily basis. Within T&E endstrength controls, manpower is allocated to meet current and anticipated needs. Outyear planning is coordinated with M&RA for input to the POM.

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	PROJECT: MCTRSS	REV DATE: 01/06/94		DRAFT		
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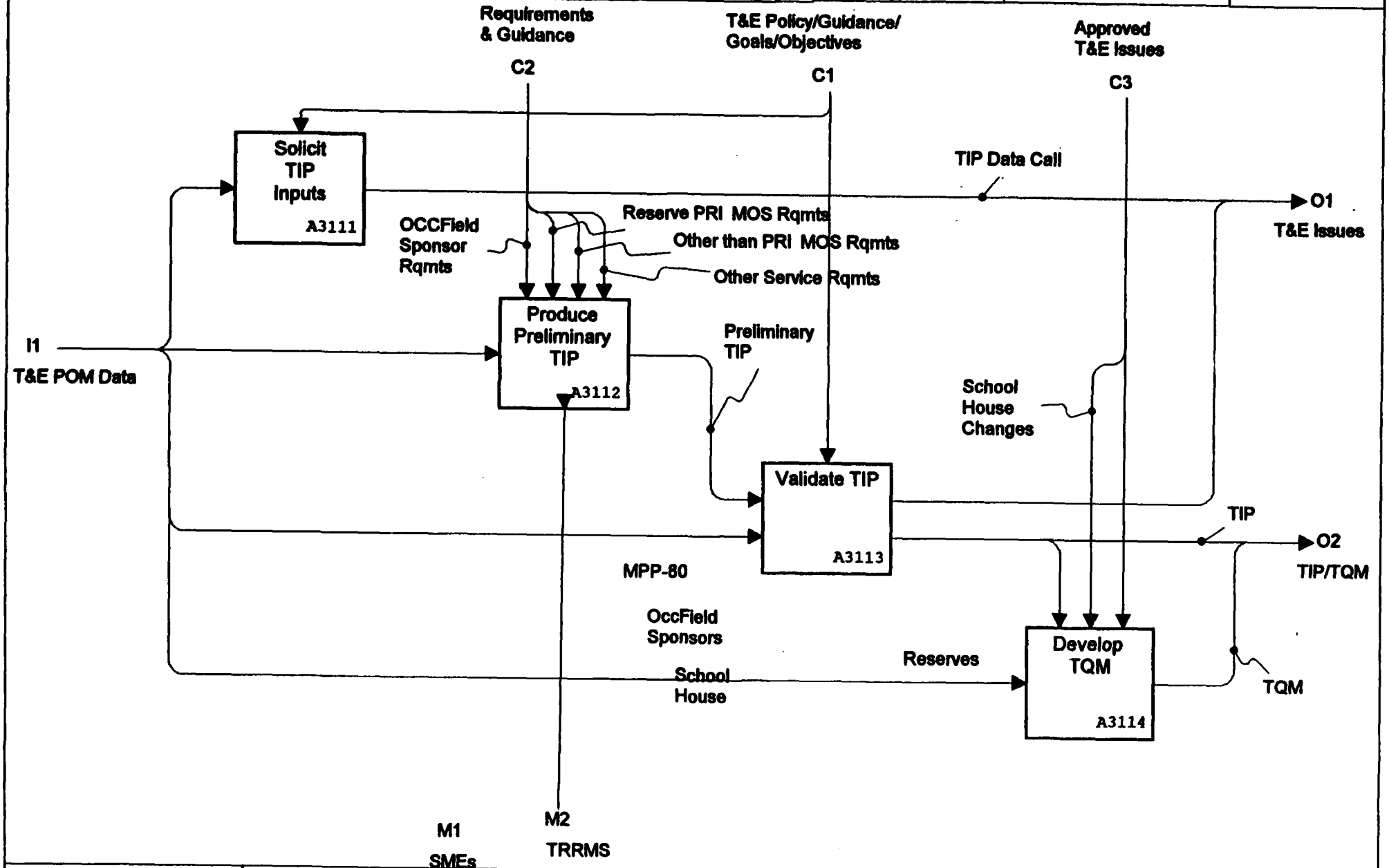

NODE: A311	TITLE: Prepare TIP/TQM	VIEWPOINT: T&E Program Manager

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	PROJECT: MCTRSS	REV DATE: 01/06/94		DRAFT			
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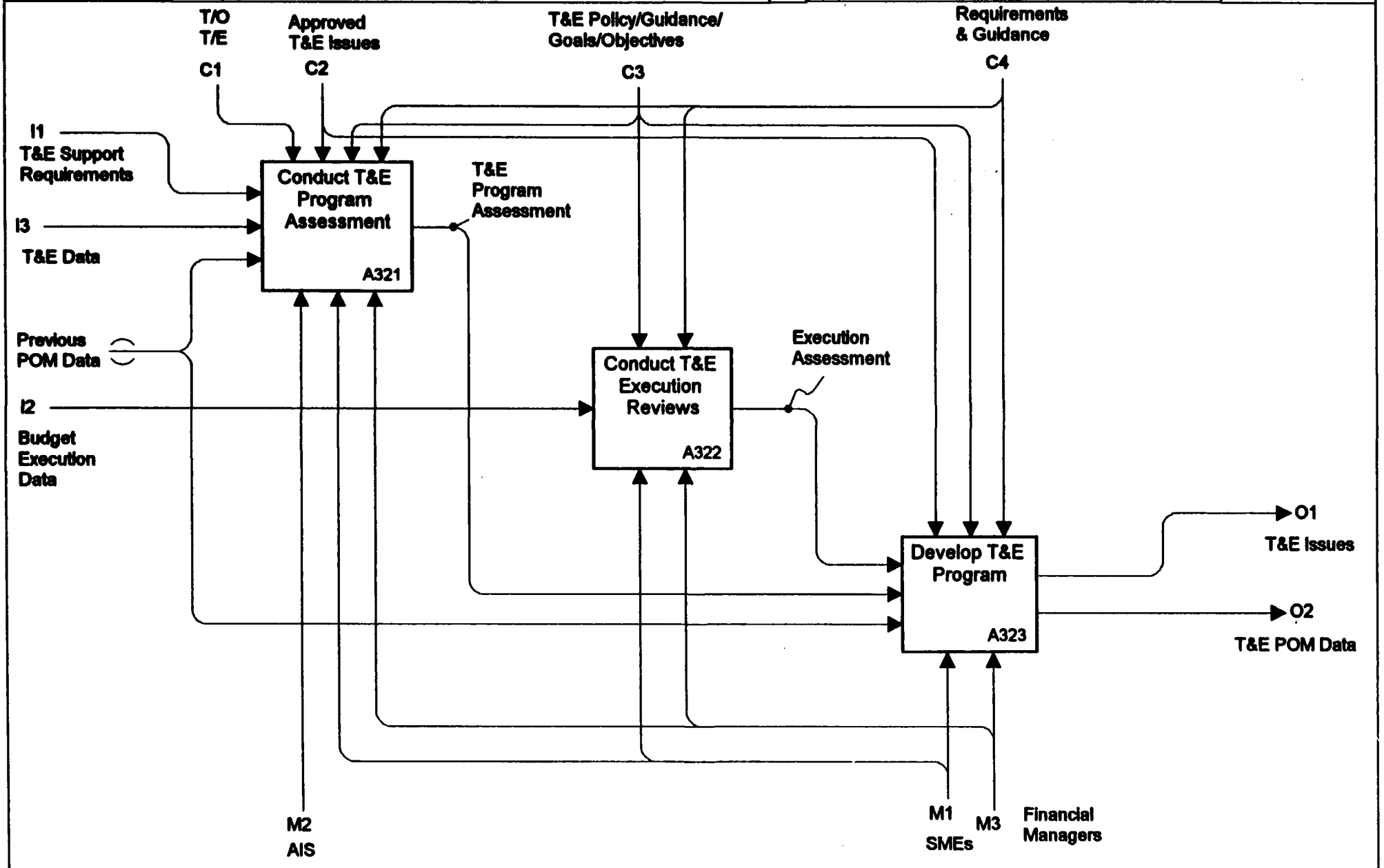

NODE: A32	TITLE: Develop T&E POM	VIEWPOINT: T&E Program Manager

A32: Develop T&E POM

T&E POM development is accomplished through program assessments, execution reviews, and program prioritization.

A321 Conduct T&E Program Assessment

T&E assessments are conducted for each of the funding appropriation categories, equipment, O&M, MILCON, and manpower.

A3211 Conduct Training Equipment Assessment

Training Equipment includes the training devices and simulators for combat environment training, command and control training, equipment operator and maintenance training, training ranges and targets, training systems support, and audio visual production and services. The Training Equipment Assessment is the most rigorous of the T&E assessments. It links requirements to the numbered capabilities of the Marine Corps Master Plan and MAGTF Mission Areas, and identifies implementing actions within capability sets. Program requirements are prioritized according to their capability contribution, building from the most deficient capability set.

A3212 Conduct O&M, MC Program Assessment

O&M program requirements are prioritized according to the source of the requirement, support category, and mission benefit. The source of the requirement is identified as either legally mandated or militarily mandated. Four Support Categories are defined and linked to attaining a specified SORTS level. The four categories are identified as either "Essential" or "Auxiliary". Mission benefit is indicated in nine increments (0-9) ranging from "no perceived benefit" to "very strong benefit". Missions are not identified but are grouped and assessed according to "achieving the mission".

A323 Develop T&E Program Requirements

T&E program requirements are prioritized by a T&E Program Committee and put into bands representing core and above core. T&E program requirements are submitted to Program Evaluation Groups (PEG) who establish relative benefit values and forward approved results to the Marine Corps POM Working Group (PWG). The PWG performs a detailed cost-benefit analysis and forwards a recommended program to the Program Review Group (PRG) who examines the recommended "green" program vs. "blue" and blue-in-support-of-green" program. The Commandant's Committee reviews the program recommended by the PRG and makes the final program recommendation to the Commandant.

ELECTRONIC FILE NAME: G1 .IDD	AUTHOR: IBES, Inc.; SSI, Inc.	DATE: 10/8/93		WORKING	READER	DATE	CONTEXT:
	PROJECT: MCTRSS	REV DATE: 01/06/94		DRAFT			■ □ □
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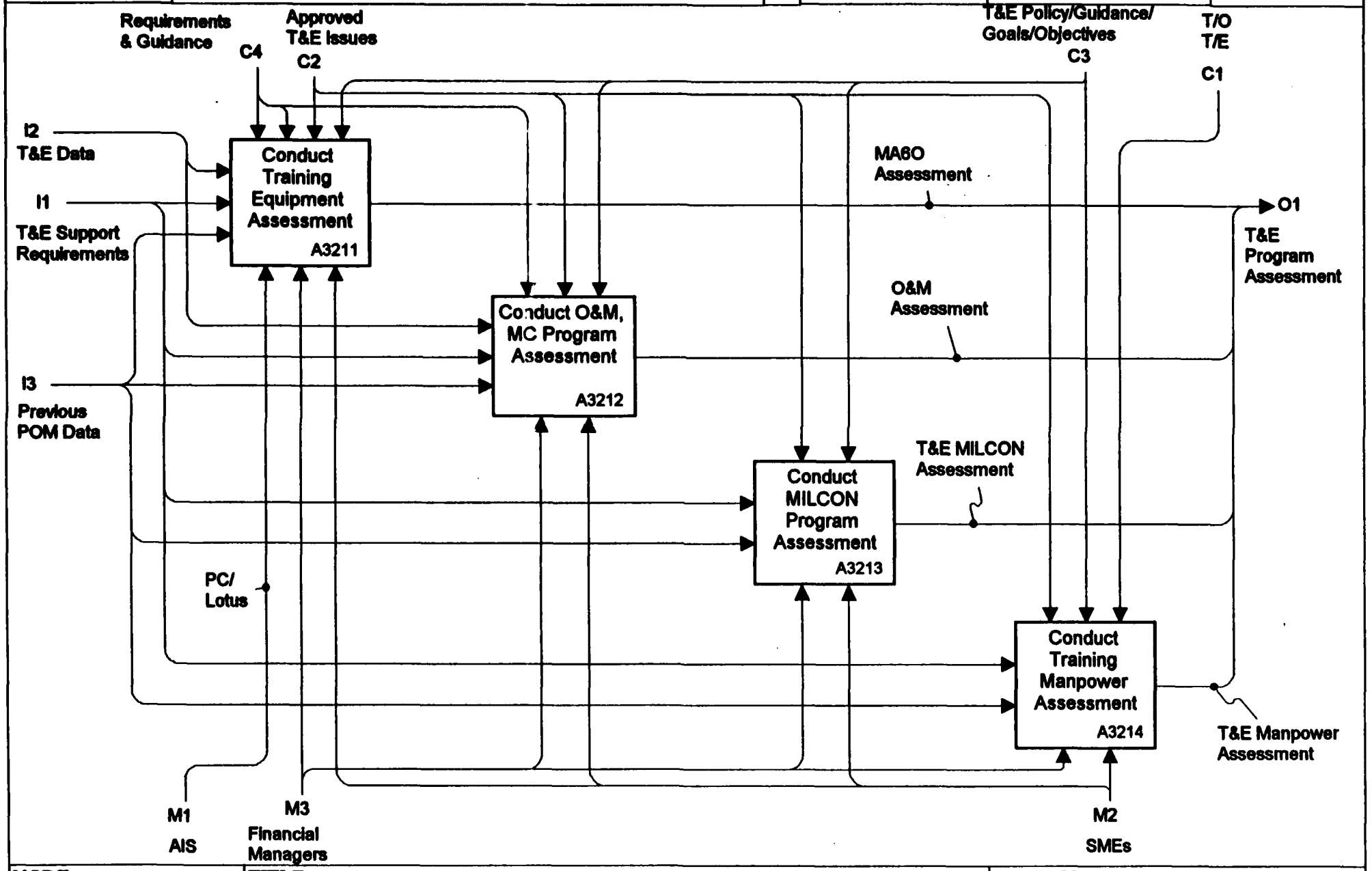

NODE:	TITLE:	VIEWPOINT:
A321	Conduct T&E Program Assessment	T&E Program Manager

ELECTRONIC FILE NAME: G1 .IDD	AUTHOR: IBES, Inc.; SSI, Inc. PROJECT: MCTRSS PROJECT OFFICER: Capt. A.V. Scott, USMC NOTES: 1 2 3 4 5 6 7 8 9 10	DATE: 10/8/93 REV DATE: 01/06/94 REV NO:		WORKING	READER DATE	CONTEXT:
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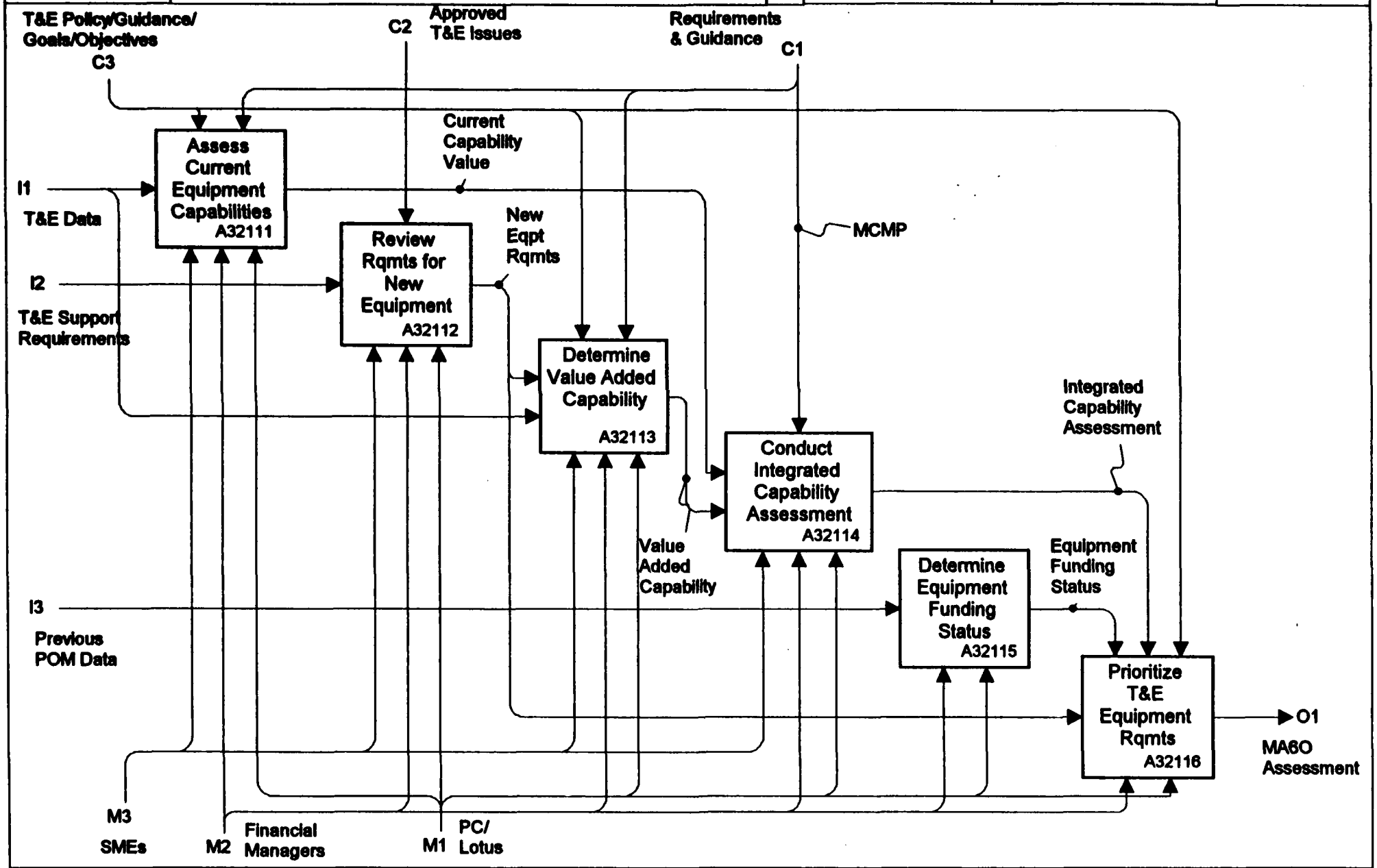

NODE: A3211	TITLE: Conduct Training Equipment Assessment	VIEWPOINT: T&E Program Manager

ELECTRONIC FILE NAME:	AUTHOR: IBES, Inc.; SSI, Inc.	DATE: 10/8/93		WORKING	READER DATE	CONTEXT:
G1 .IDD	PROJECT: MCTRSS	REV DATE: 01/06/94		DRAFT		
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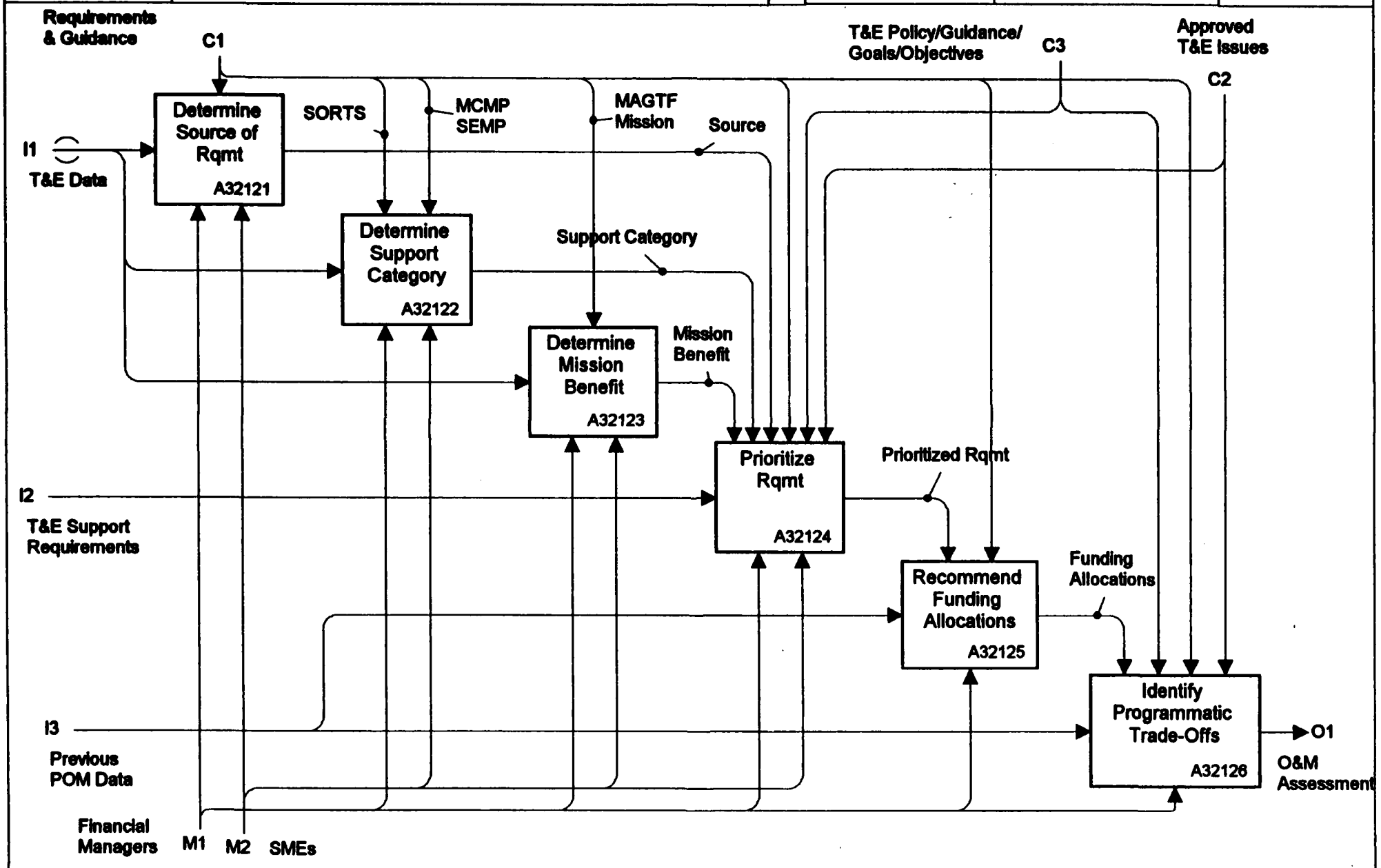

NODE:	TITLE:	VIEWPOINT:
A3212	Conduct O&M, MC Program Assessment	T&E Program Manager

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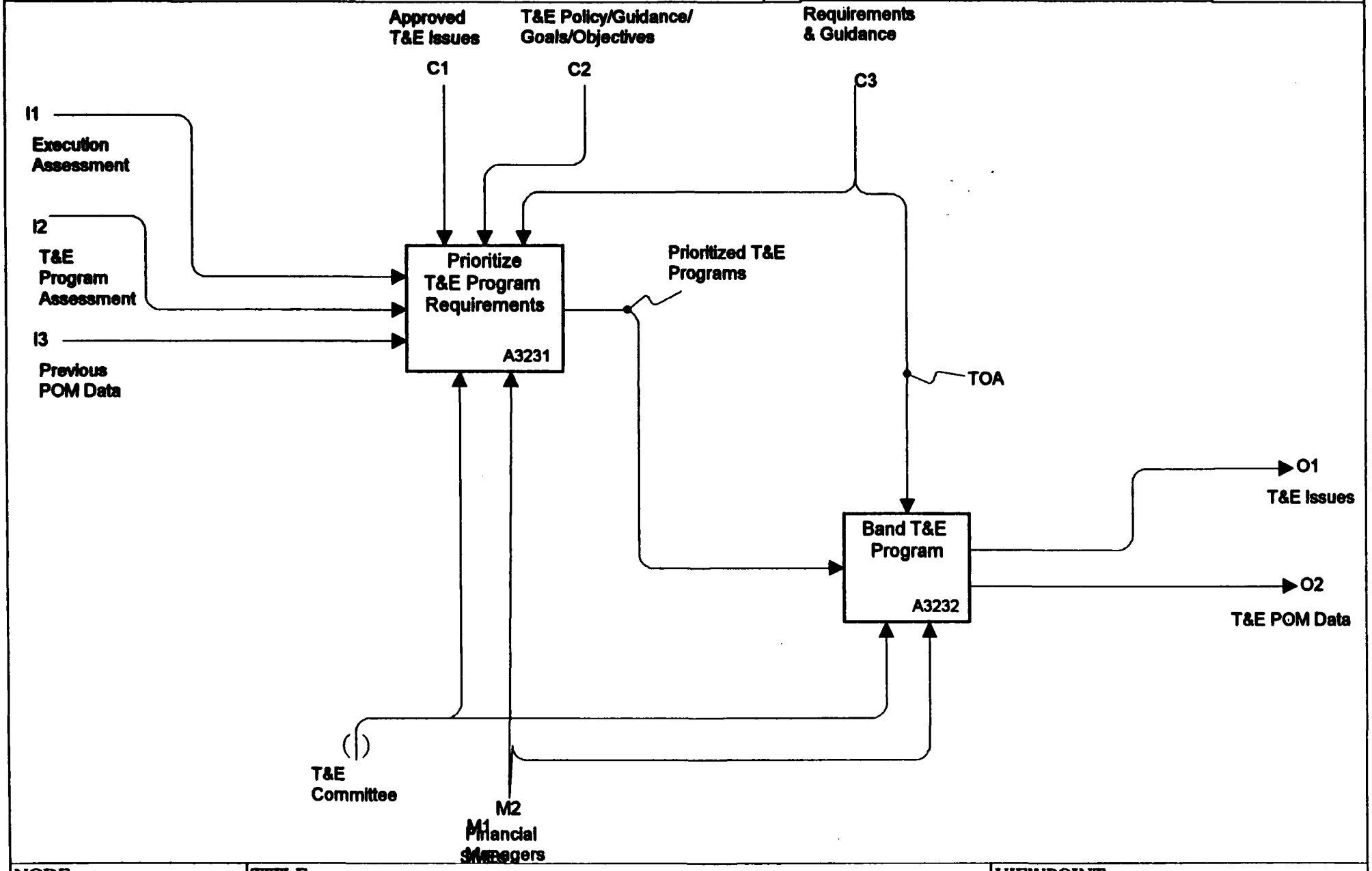

NODE: A323	TITLE: Develop T&E Program	VIEWPOINT: T&E Program Manager

ELECTRONIC FILE NAME: G1 .IDD	AUTHOR: IBES, Inc.; SSI, Inc.	DATE: 10/8/93		WORKING	READER DATE	CONTEXT:
	PROJECT: MCTRSS	REV DATE: 01/06/94		DRAFT		
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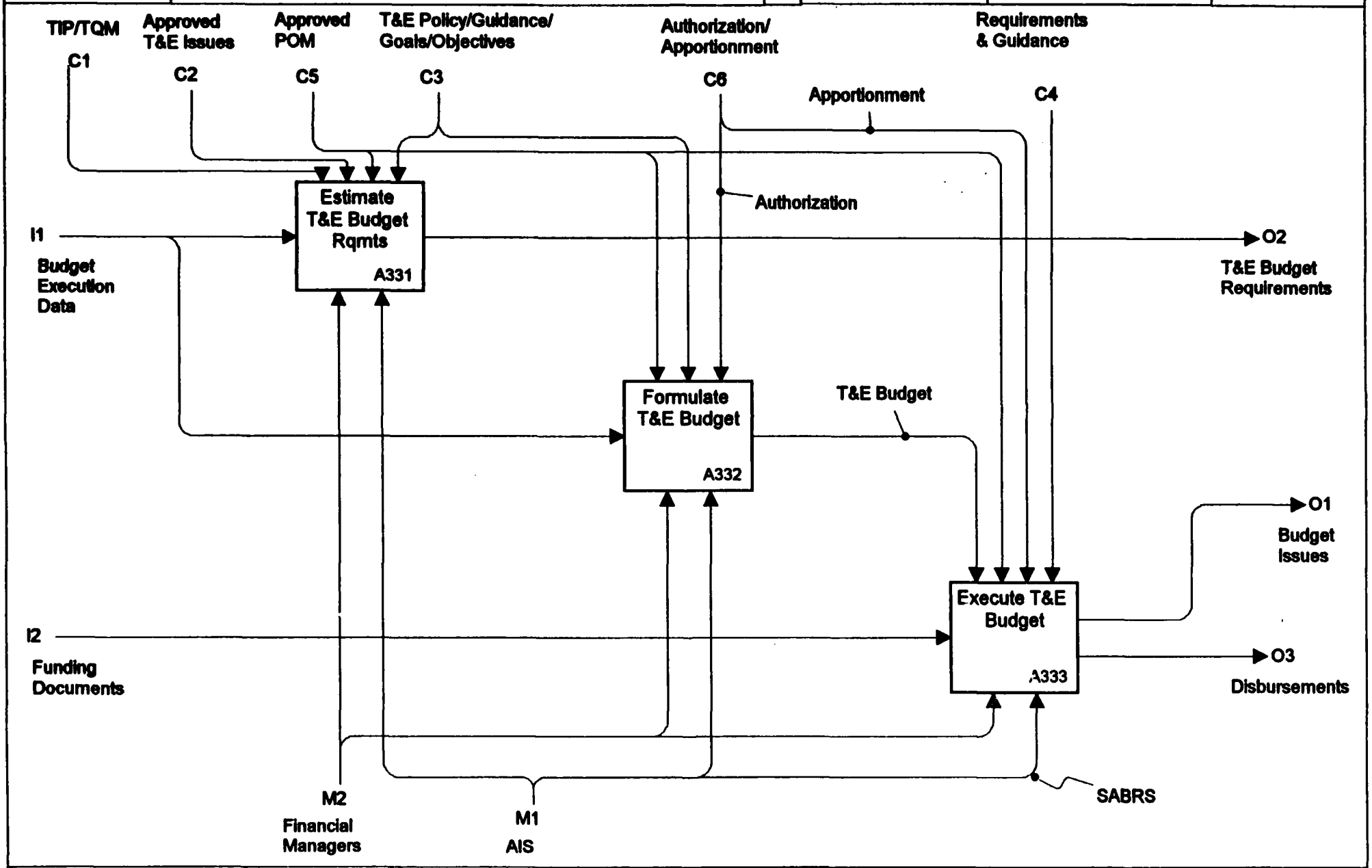

NODE:	TITLE:	VIEWPOINT:
A33	Budget T&E Resources	T&E Program Manager

A33: Budget T&E Resources

Once the Marine Corps POM has been approved by the Navy and the OSD program offices, T&E commands prepare budget submissions based on the approved program. Budget submissions are forwarded to the Department of the Navy for review. Once approved by the Secretary of Defense, the DoD Budget is forwarded to the President for signature and then to Congress for authorization and appropriation. After Congress appropriates funds, the Services issue funding apportionments to T&E commands who execute the budget. As the budget is executed, and unprogrammed, emergent requirements surface, resource issues are developed and forwarded, via the chain of command for funding relief. Resource issues that are not resolved in execution are evaluated during planning and programming for the next POM/budget cycle.

ELECTRONIC FILE NAME: G1 .IDD	AUTHOR: IBES, Inc.; SSI, inc.	DATE: 10/8/93		WORKING	READER DATE	CONTEXT:
	PROJECT: MCTRSS	REV DATE: 01/06/94		DRAFT		
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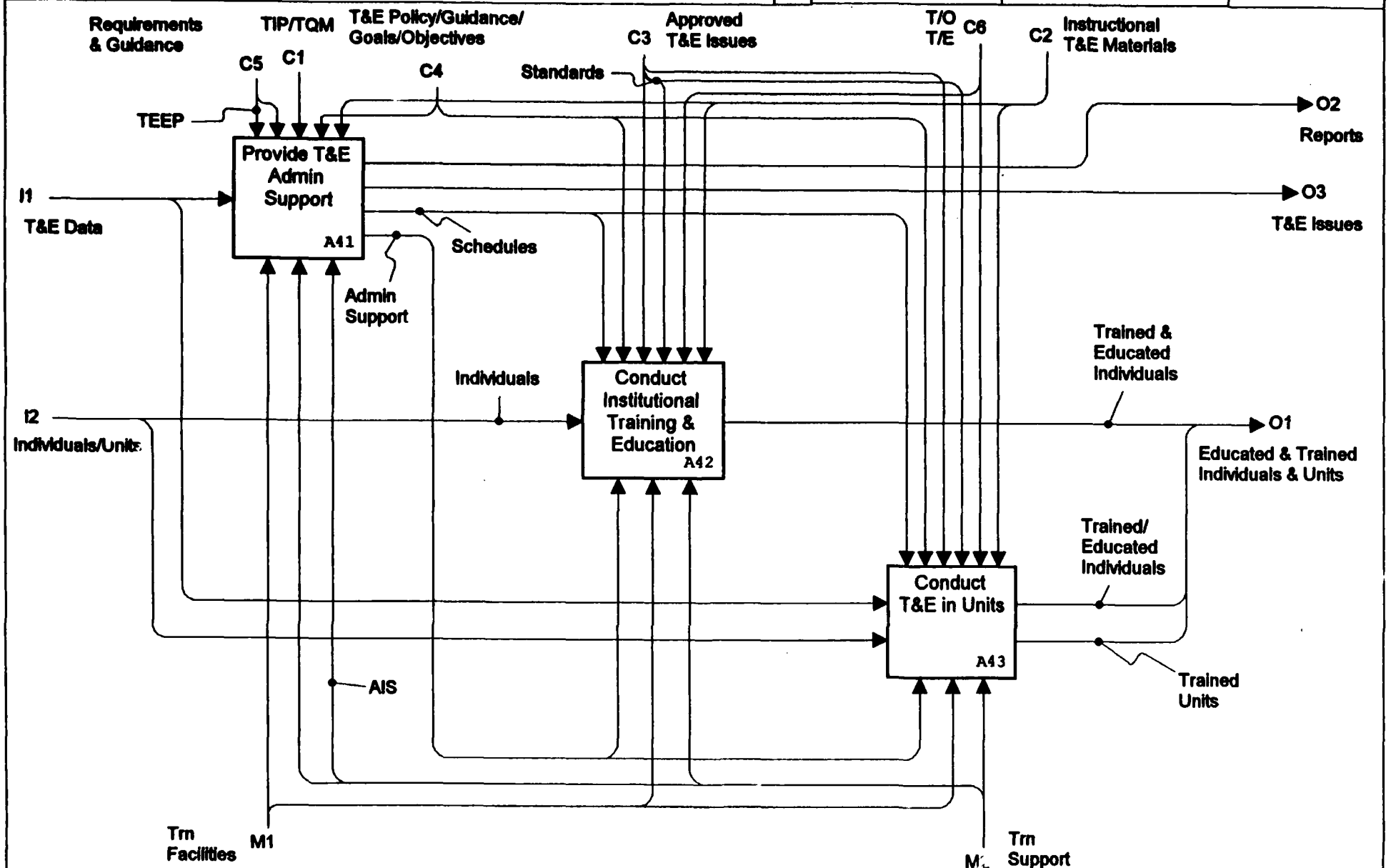

NODE: A4	TITLE: Implement T&E	VIEWPOINT: T&E Program Manager

A4: IMPLEMENT TRAINING AND EDUCATION

Providing administrative support and conducting institutional training and training in units are the major activities of implement training and education. The purpose of the implement phase is the effective and efficient delivery of instruction to promote understanding of material, to achieve mastery of learning objectives, and to ensure a transfer of knowledge from the instructional setting to the task.

ELECTRONIC FILE NAME: G1 .IDD	AUTHOR: IBES, Inc.; SSI, Inc. PROJECT: MCTRSS PROJECT OFFICER: Capt. A.V. Scott, USMC NOTES: 1 2 3 4 5 6 7 8 9 10	DATE: 10/8/93 REV DATE: 01/06/94 REV NO:		WORKING	READER DATE	CONTEXT:
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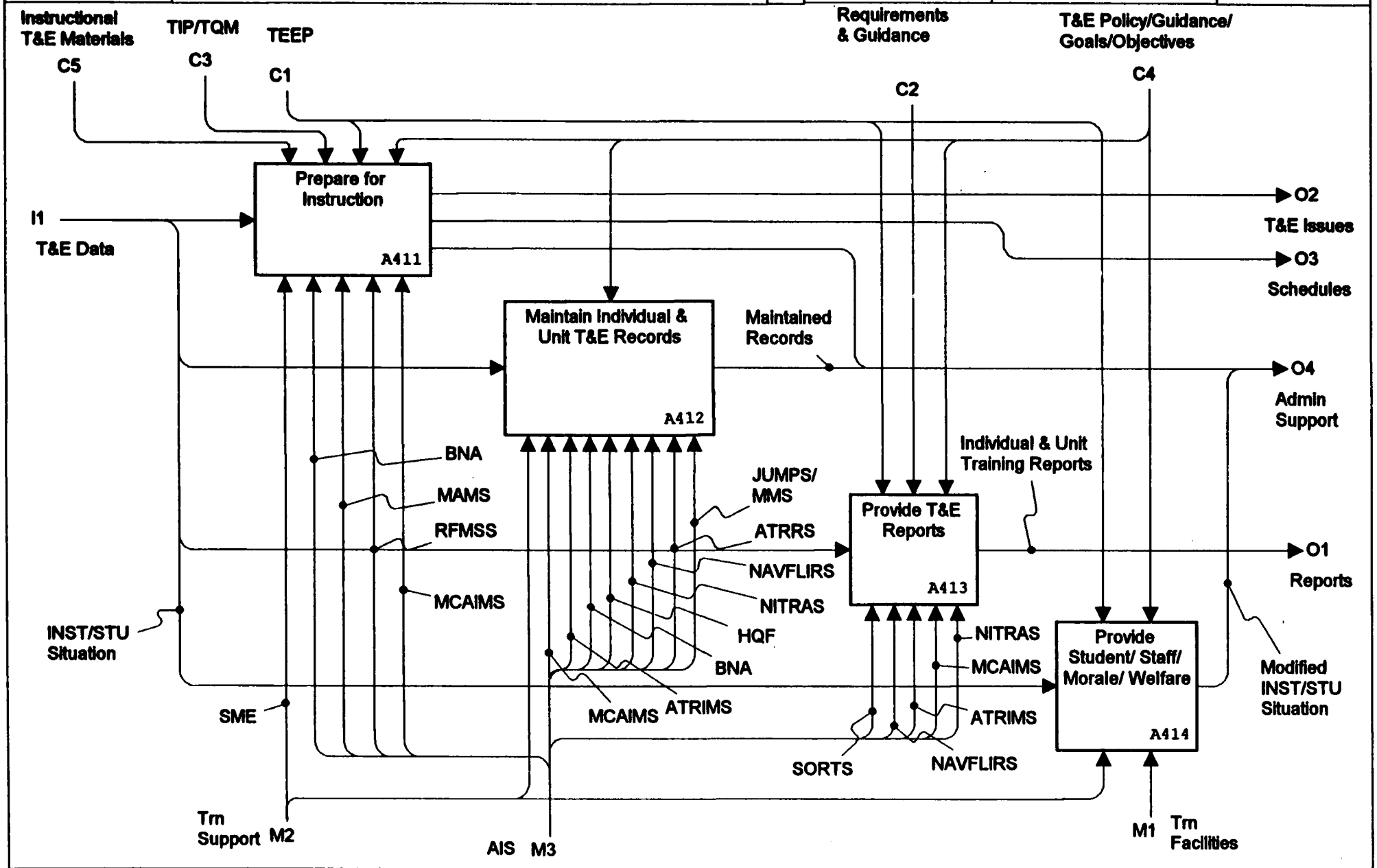

NODE:	TITLE:	VIEWPOINT:
A41	Provide T&E Admin Support	T&E Program Manager

A41: Provide T&E Administration Support

Administrative support includes; gathering all the material for delivery of instruction; preparing the classroom or training site; arranging for support personnel, equipment, and devices; maintaining individual and unit training records; and providing for the morale and welfare of students and staff.

A411 Prepare for Instruction

Preparation involves all those activities that instructors and support personnel must perform to ready themselves for delivering the instruction. Personnel must be rehearsed and the materials and instructional environment prepared to maximize transfer of learning from instructional setting to the job.

A412 Maintain Individual & Unit T&E Records

Trainers note the results of performance evaluation of individuals in appropriate records. They record the results of collective training in after action reports or appropriate records as determined by the unit SOP. Selected individual training information is maintained in JUMPS/MMS.

(Various automated and manual training and education information systems and reports have been compiled as part of this project and will be evaluated as to their utility for inclusion in the MCTRSS.

The A412 activity is supported by many stovepipe information systems. These systems are not integrated nor do they share a common database. Reports generated from individual and unit training records can produce inconsistent or conflicting information).

The ACE currently has a system (T & R Manual and MATMEP) that allows them to track individual MOS task training beyond the schoolhouse and is transferable throughout the Marine Corps. The GCE and CSSE do not have a comparable system.

A413 Provide Reports

The training and education process thrives on reports generation. Some examples of required T&E reports are: SORTS, MCCRES, Battalion Training Days, Military Manpower Training Report (MMTR), After Action Reports, Lessons Learned, Commander's Evaluations, etc.

A414 Provide Student/Staff Morale & Welfare

Factors in the training environment that may impact and individual or a unit's ability to train. They include personnel turbulence, MOS mismatch, education, billeting and discipline.

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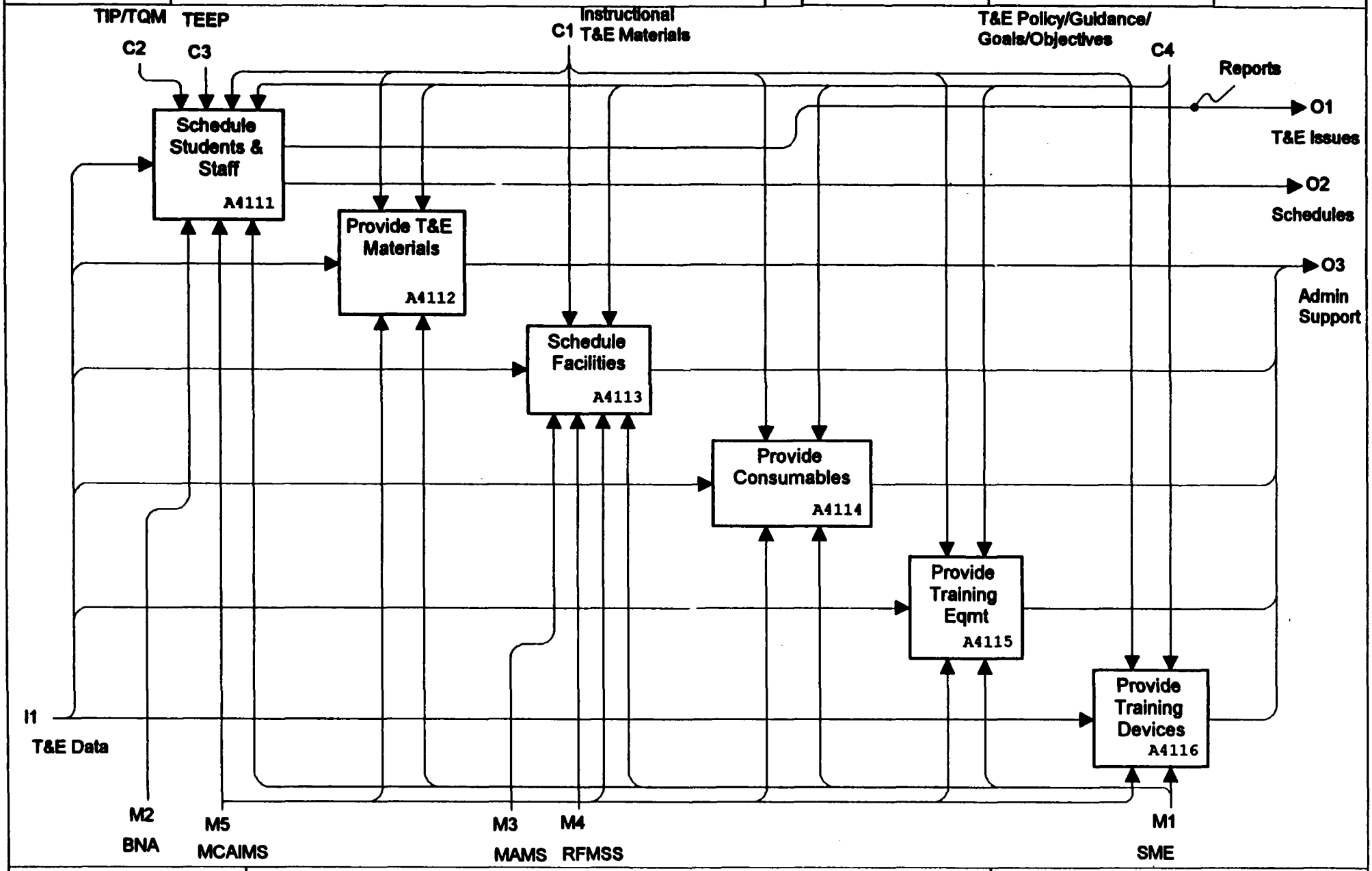

NODE: A411	TITLE: Prepare for Instruction	VIEWPOINT: T&E Program Manager

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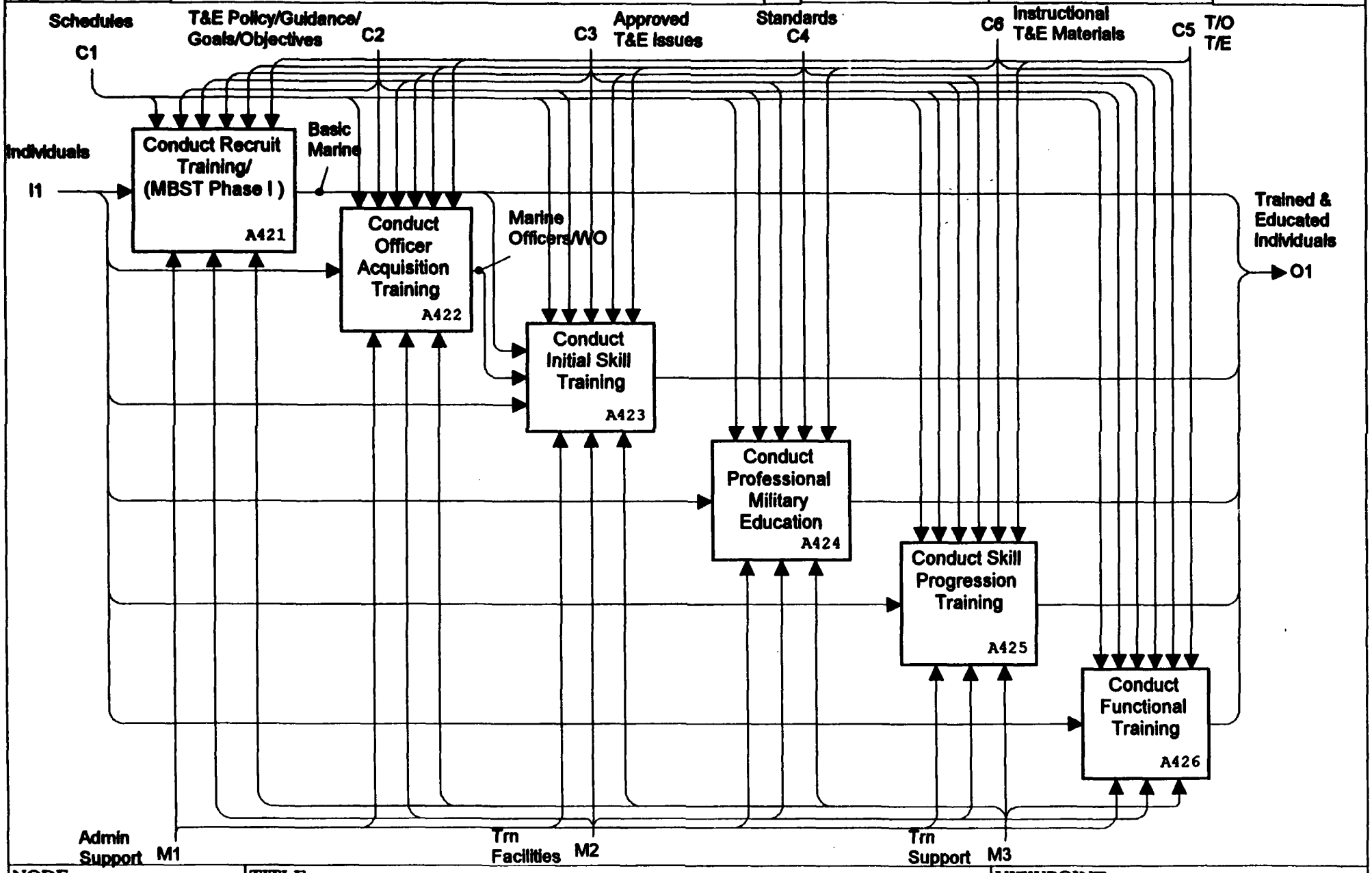

NODE: A42	TITLE: Conduct Institutional Training & Education	VIEWPOINT: T&E Program Manager

A42: Conduct Institutional T&E

A421 Conduct Recruit Training

All recruit training is governed by minimal, unwaiverable standards or performance which every recruit must achieve in order to graduate. Each individual entering the Marine Corps receives training designed to develop spirited, disciplined, highly motivated Marines who are qualified in basic combat skills that enable them to defend themselves in a combat zone: physically conditioned; drilled in the fundamentals of being a Marine; knowledgeable of rights and responsibilities of being a Marine; knowledgeable of rights and responsibilities under the international body of law governing warfare, and who are prepared to undergo further individual training. Marine Battle Skills Training (MBST) Phase I is conducted in conjunction with Recruit Training. Recruit Training is conducted at Marine Corps Recruit Depots, San Diego, California and Parris Island, South Carolina.

A422 Conduct Officer Acquisition Training

Officer Acquisition Training consists of Pre-Commissioning Training and Officer Basic Training. Pre-Commissioning Training is that training necessary to screen and identify those candidates who qualify for a commission as a Marine Corps Officer. Programs that offer this training are:

- Officer Candidate Course
- NROTC
- USNA, USMA and USAFA
- Platoon Leaders Course
- Marine Enlisted Commissioning Program
- Enlisted Commissioning Program

A423 Conduct Initial Skill Training

Initial Skill Training is training undertaken by each Marine subsequent to Recruit and Officer Acquisition Training to initially qualify for a military occupational specialty (MOS) beyond the basic MOS. Upon successful completion of officer acquisition training, officer candidates are commissioned as 2nd Lieutenants, USMC/USMCR and attend Officer Basic Training. Officer Basic Training is conducted at The Basic School (TBS), Quantico, Va.

Initial skill training may be conducted in institutions such as formal schools, or in units as managed on the job training (MOJT) for enlisted Marines. This subcategory may include training received by those individuals making a lateral move from one occupational field to another. Marine Combat Training (MCT), Phase II of MBST is conducted in conjunction with Initial Skill Training.

Some attrited individuals from one training track are absorbed into other training tracks with the end result being an MOS trained individual.

A424 Conduct Professional Military Education

Professional Military Education is training and education which provides Marines with the knowledge and attitudes necessary for increased grade and responsibility. Unlike skill progression training which leads to a specific skill, PME increases overall professional competence in general military education as presented in noncommissioned officer courses, staff noncommissioned officer academies, Amphibious Warfare School, Command and Staff College, War College, Joint/Service/International/Civilian schools, seminars and symposia, and self study.

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A425 Conduct Skill Progression Training

Skill Progression Training is training received subsequent to initial skill qualification training, which provide Marines with additional skills and knowledge in their MOS to perform at a higher skill level or in a supervisory position.

A426 Conduct Functional Training

Functional Training is training which requires additional required skills without changing the Marine's primary specialty or skill level. Examples of functional training are drug and alcohol instructor training, drill instructor school, recruiter school, etc. Functional Training may or may not result in the assignment of an additional MOS.

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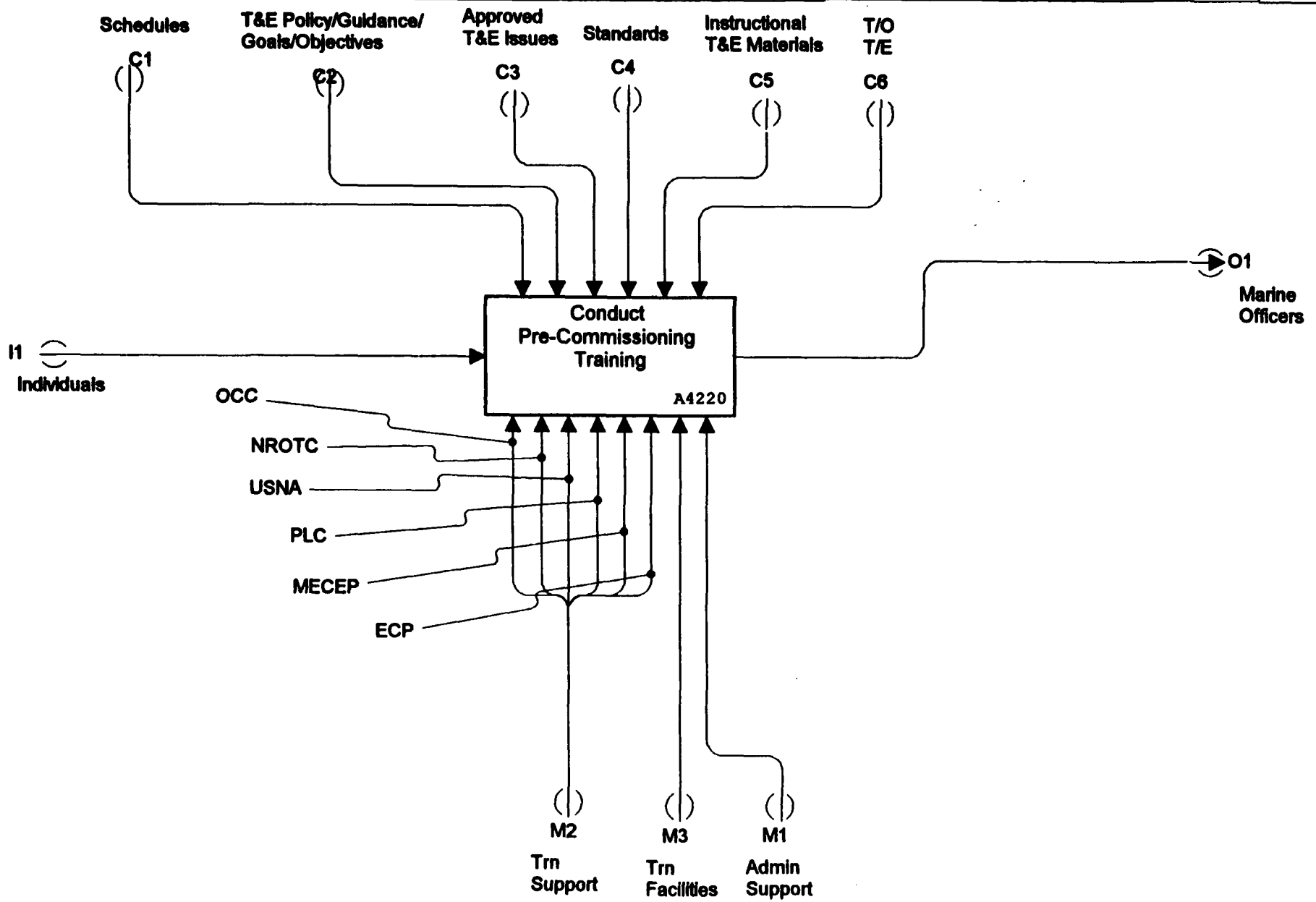

NODE:	TITLE:	VIEWPOINT:
A422	Conduct Officer Acquisition Training	T&E Program Manager

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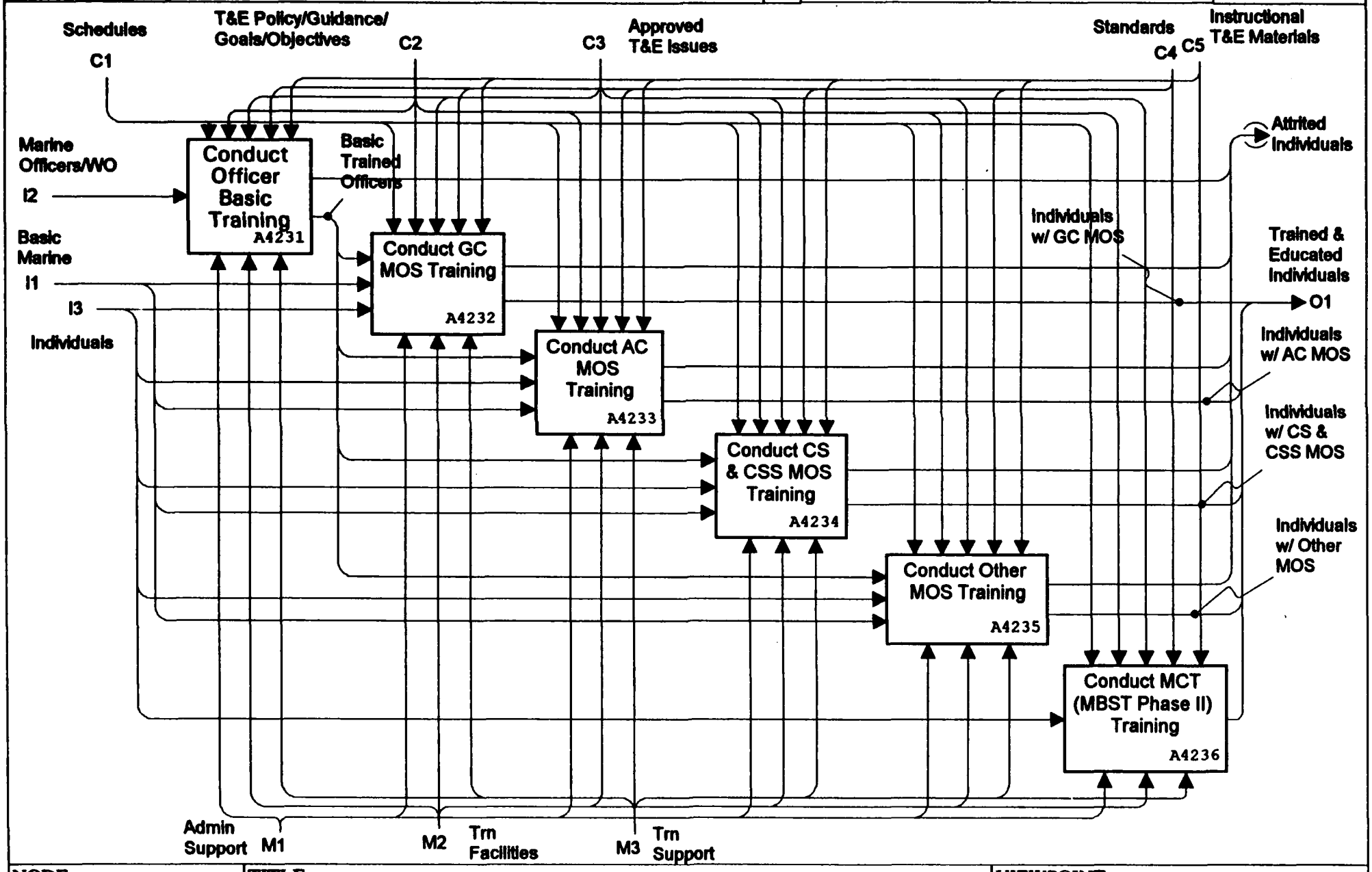

NODE: A423	TITLE: Conduct Initial Skill Training	VIEWPOINT: T&E Program Manager

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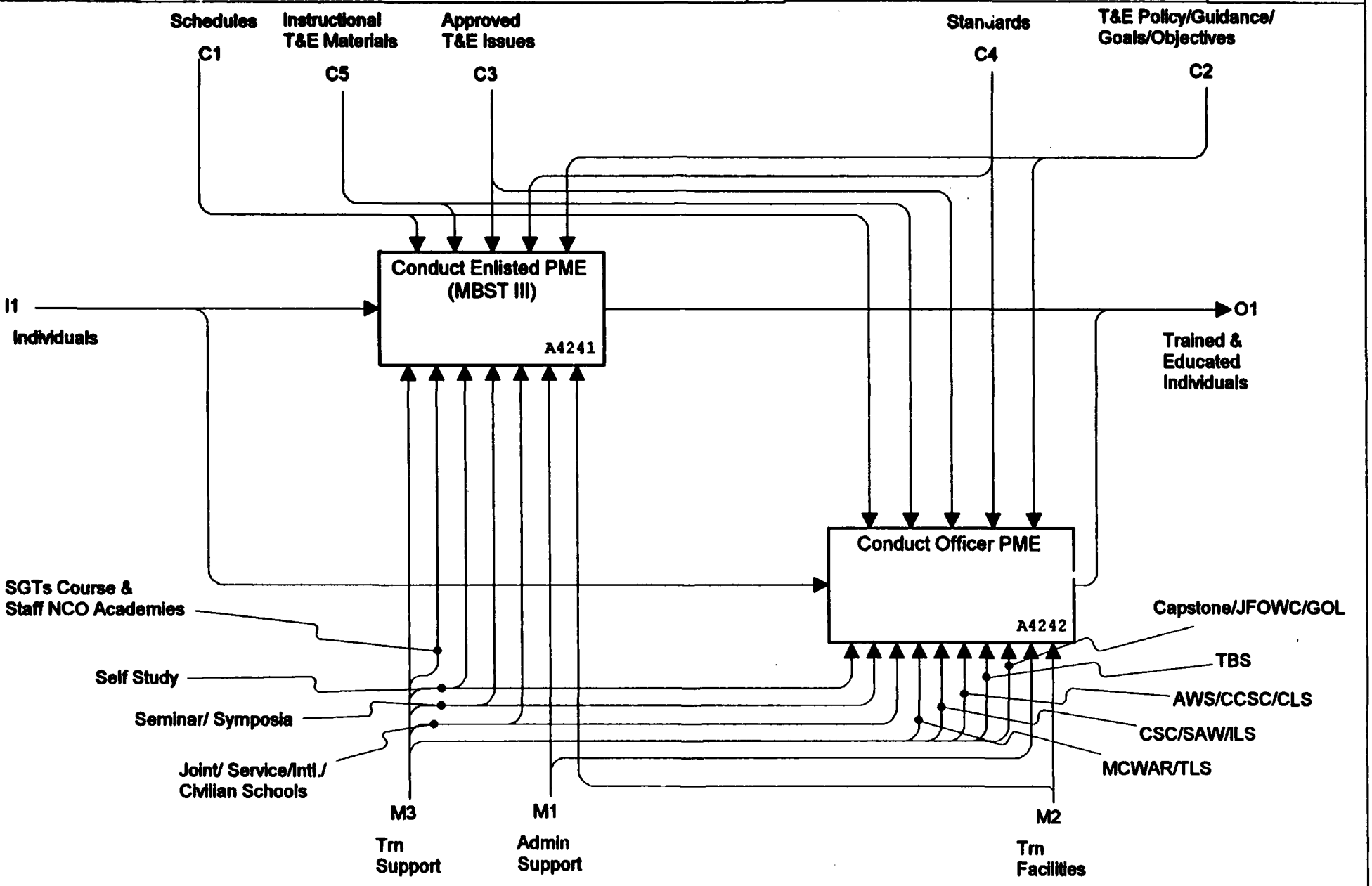

NODE: A424	TITLE: Conduct Professional Military Education	VIEWPOINT: T&E Program Manager

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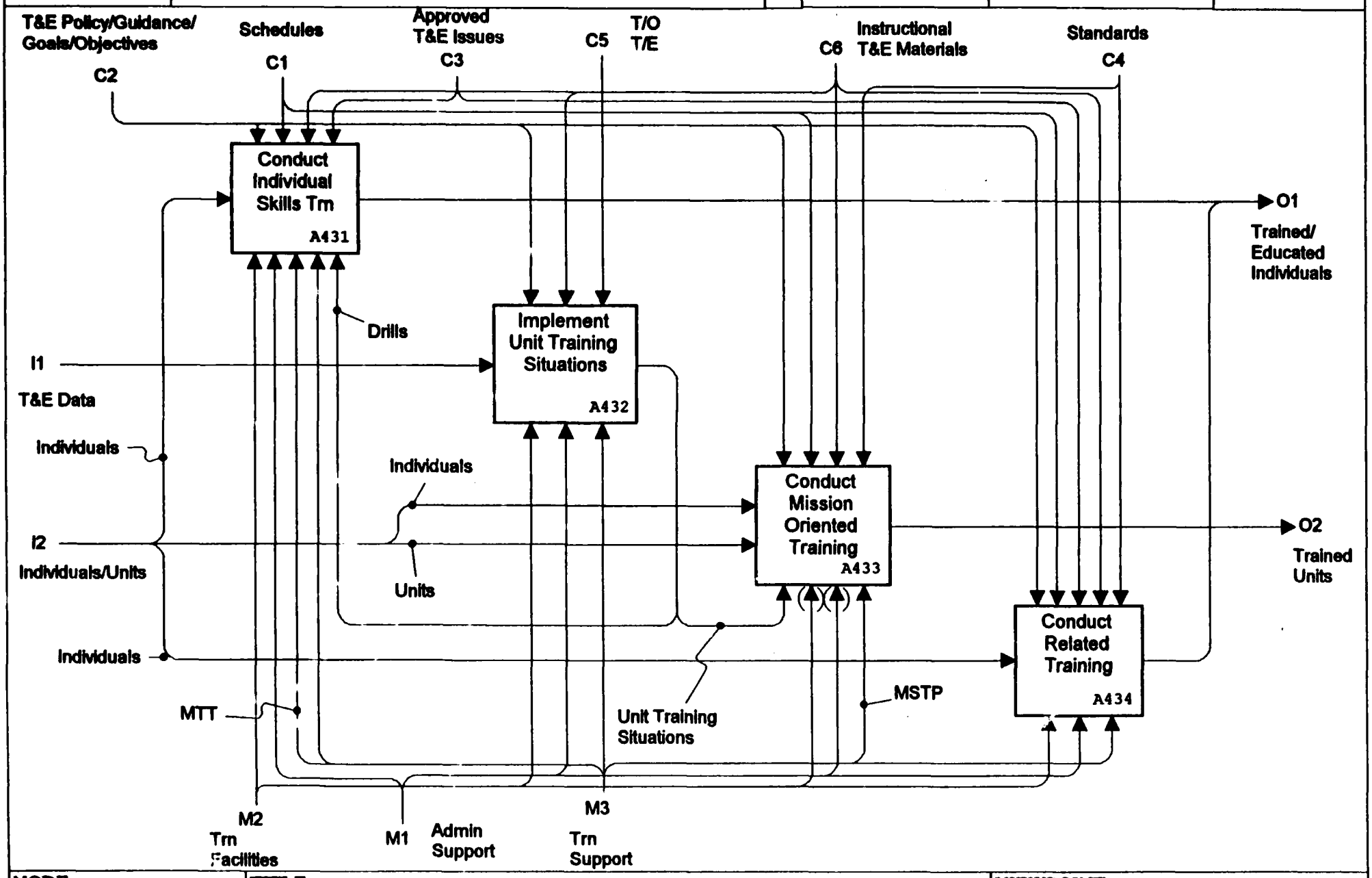

NODE: A43	TITLE: Conduct T&E in Units	VIEWPOINT: T&E Program Manager

A43: Conduct T&E In Units

Preparing individual Marines, teams, and units to perform assigned tasks and other duties at the desired level of proficiency. Marines must be proficient in the basic skills required to perform jobs under battlefield conditions. To achieve results, all training should be performance-oriented. As performance levels increase, the conditions under which tasks are performed become more demanding while standards remain constant.

A431 Conduct Individual Skill Training

Individual training occurs on a continual basis and is fully integrated into collective training. Tasks are trained to meet standards, not merely to occupy the time programmed on the training schedule.

A432 Implement Unit Training Situations

Unit training situations consist of drills, exercises, simulation, and wargames. Training exercises combine individual skills, leader skills, drills, and weapon system proficiency. Exercises reinforce and sustain proficiency in individual and collective skills in units. In addition, exercises provide training on collective tasks and integrate all elements of the combined arms team.

A433 Conduct Mission Oriented Training

Mission Oriented Training is training, both individual and collective, which provides Marines with skills, knowledge, and attitudes necessary to discharge their duties in support of a unit's mission. The unit combat mission is the basis for the development of tasks and the specific standards to which each task must be executed. Units are taught these tasks according to prescribed collective and individual training standards set forth in MCCRES and Individual Training Standards System (ITSS).

Command and control training sustains proficiency for leaders, staff, and individual Marines. It reinforces common skills and those particular to duty positions. It trains each echelon to respond to the needs of higher, adjacent, and attached combat, combat support, and combat service support units. One of the prime purposes of training exercises is to teach leaders to orient on the needs of subordinate units in a sequence of timely troop leading steps that allow units to execute the mission properly. The three categories of command and control are battle training, survivability training, and combined arms training.

(1) Staff Training- Battle staff training allows commanders and their staffs to fight simulated battles in diverse command post (CP) configurations under realistic combat conditions as smoothly functioning teams.

(2) Survivability Training- Survivability training ensures proficiency during intense and continuous combat. It ensures that individual Marines and teams can operate effectively in a variety of situations. It involves those routine tasks that units must perform well to ensure their survival.

(3) Combined Arms Training- Proficiency in combined arms training is required for units, staffs, and commanders to fight and win battles. Examples of systems required to be integrated into training are:

- Fire support
- Intelligence
- Electronic warfare
- Airspace management

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- Air defense
- Ground maneuver
- Antiarmor
- Combat support
- Combat service support.

A434 Conduct Related Training

Related Training is training which augments, supports, or adds to other individual training conducted at the unit level. Related training includes, but is not limited to, troop information, drug and alcohol abuse control, traffic safety, etc.

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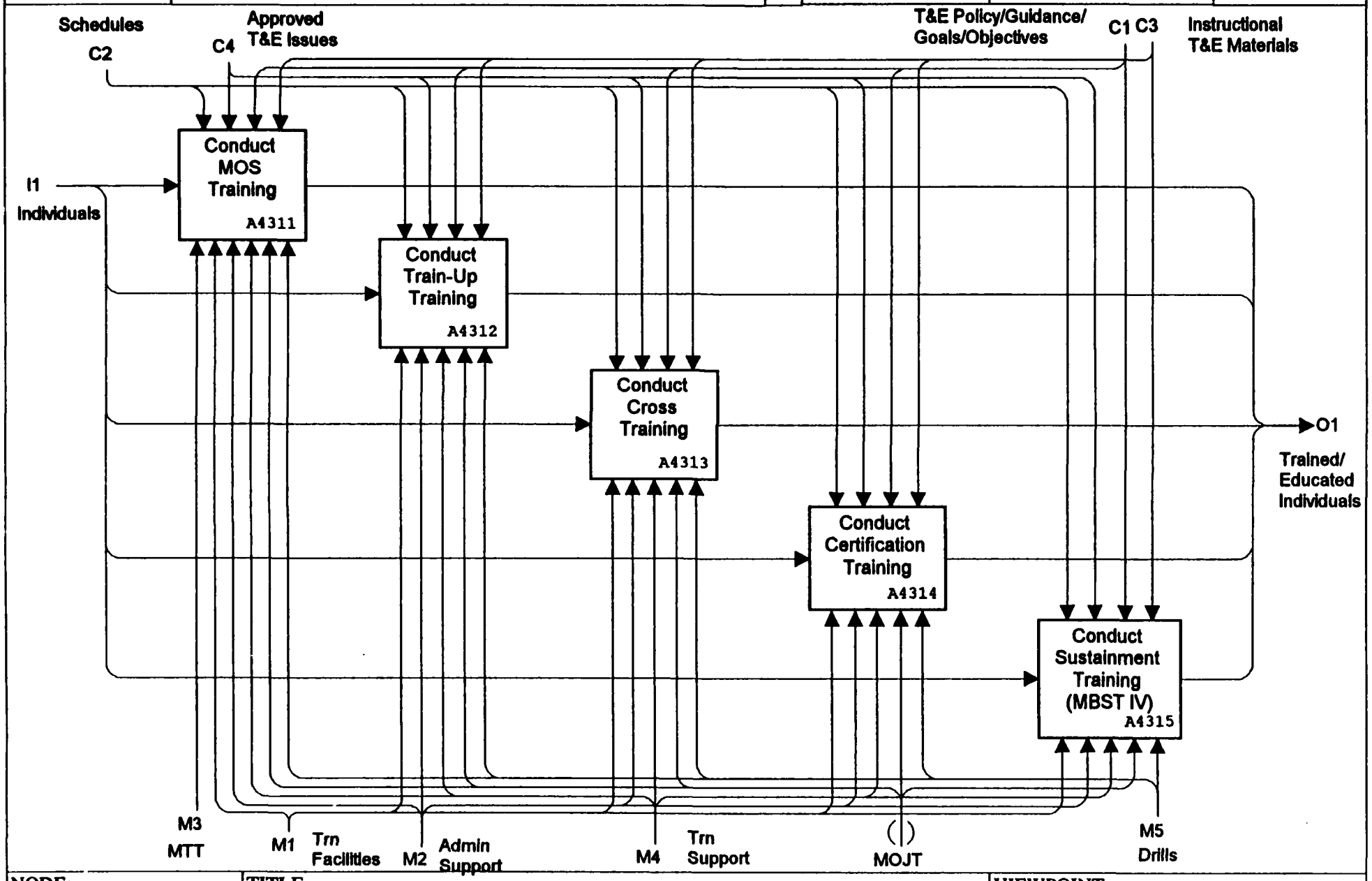

NODE: A431	TITLE: Conduct Individual Skills Trn	VIEWPOINT: T&E Program Manager

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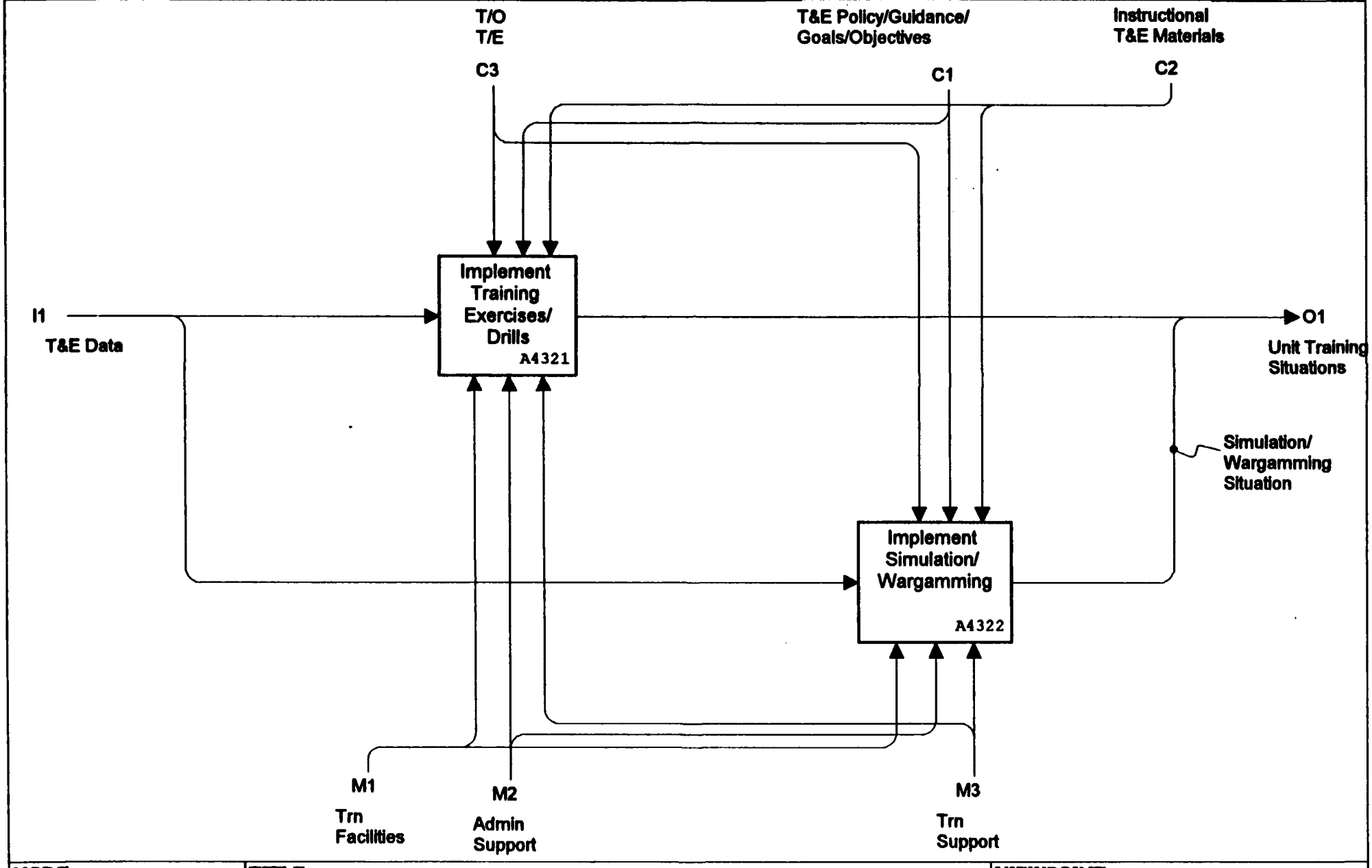

NODE:	TITLE:	VIEWPOINT:
A432	Implement Unit Training Situations	T&E Program Manager

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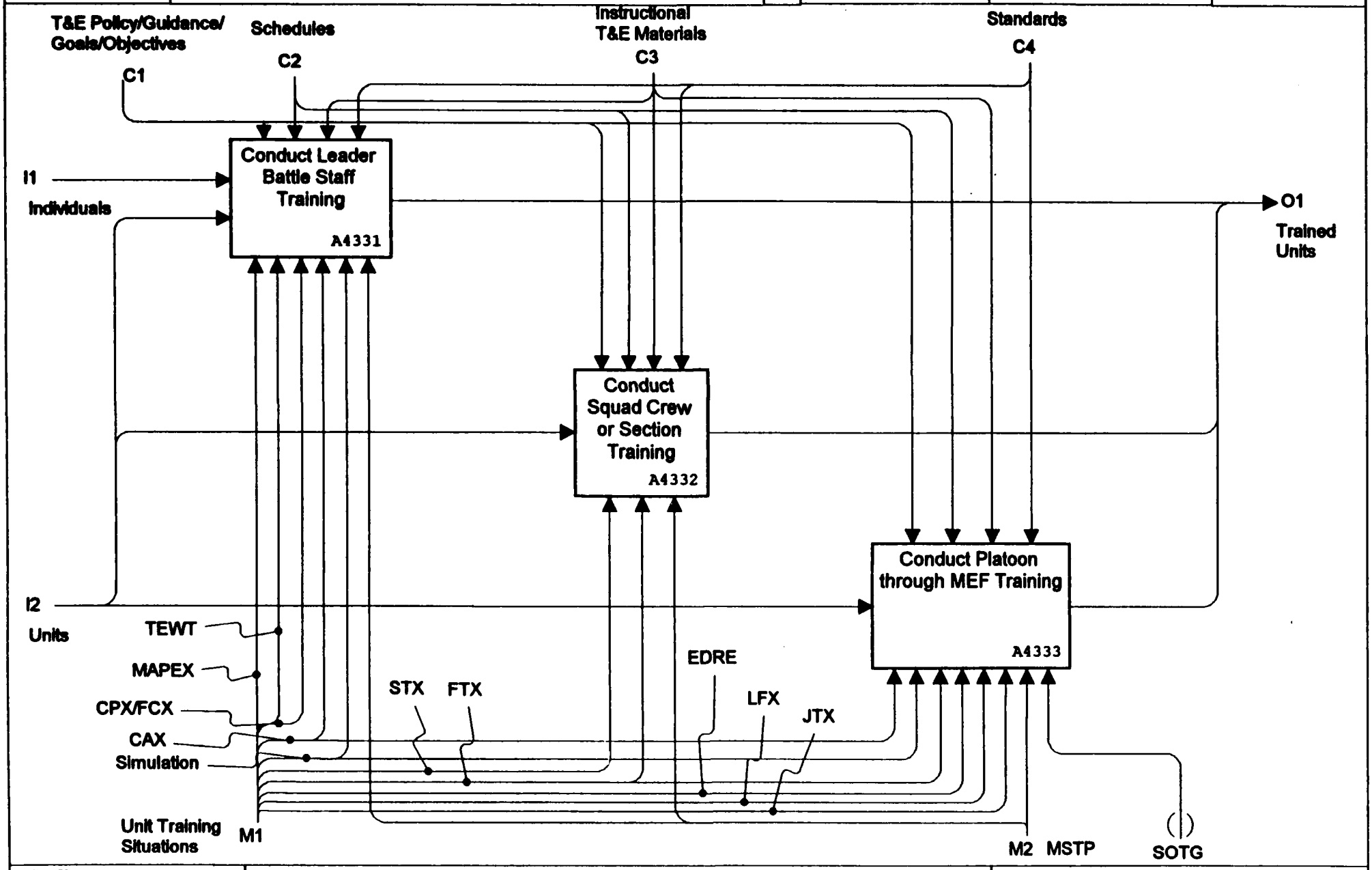

NODE: A433	TITLE: Conduct Mission Oriented Training	VIEWPOINT: T&E Program Manager

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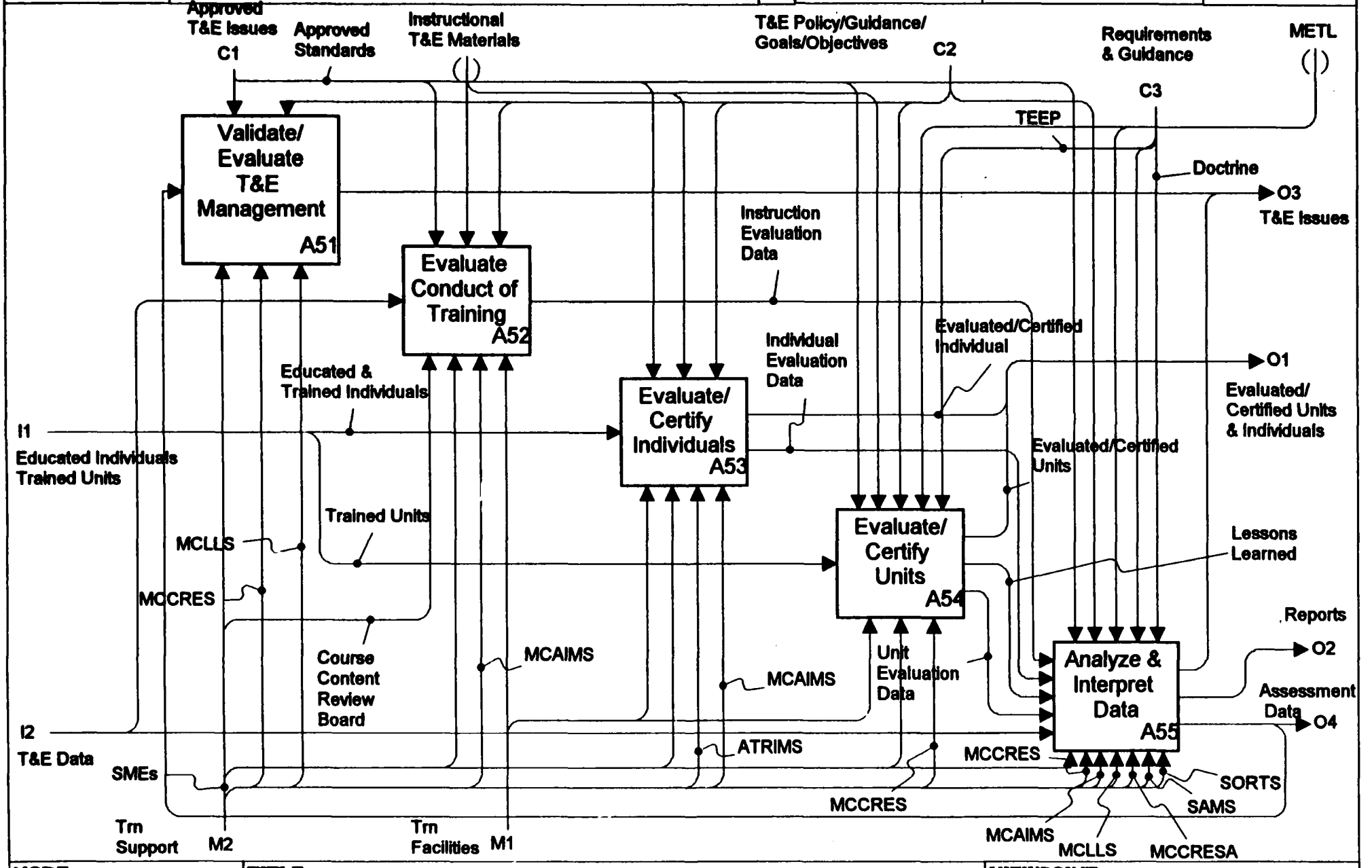

NODE: A5	TITLE: Evaluate/ Certify T&E	VIEWPOINT: T&E Program Manager

A5: EVALUATE/CERTIFY T&E

Evaluation occurs throughout the training and education life-cycle. The sum total of all T&E management actions must constantly be evaluated for merit and worth. Individual and unit performance are evaluated against established standards evolved from doctrine and experience. Evaluation addresses more than instructor techniques and management procedures. It addresses the sum total of leader tasks, drills, teamwork, and Marine skills performed within the framework of the collective mission or task. The evaluation process is only as effective as the feedback and its subsequent use in improving training and education.

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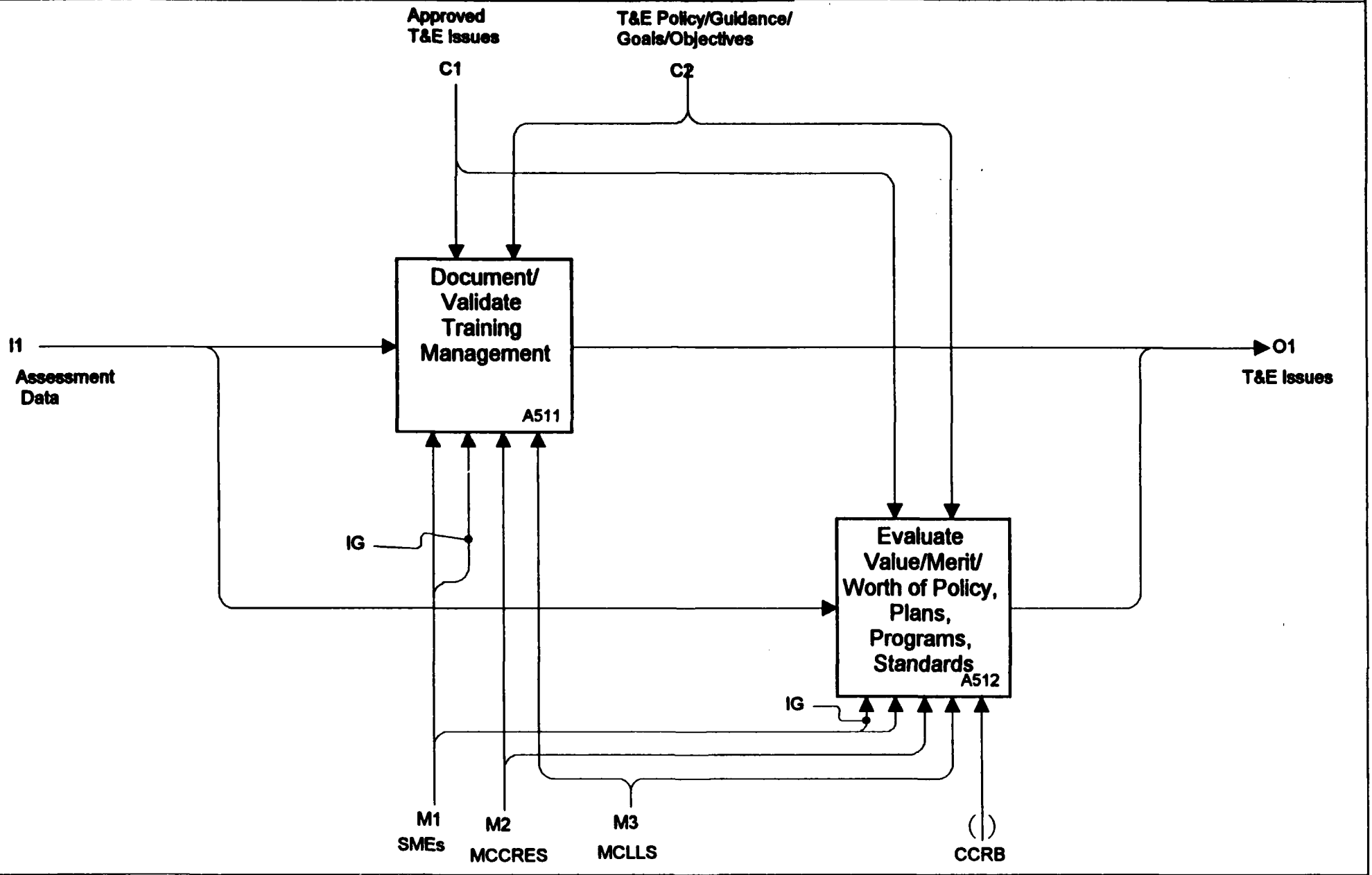

NODE:	TITLE:	VIEWPOINT:
A51	Validate/ Evaluate T&E Management	T&E Program Manager

A51: Validate/Evaluate T&E Management

Evaluation is a continuous process at all echelons. Commanders constantly evaluate planning and resource actions to ensure they are mission-oriented and that they build toward combat readiness. Higher headquarters evaluate their own planning and resource actions, as well as those of subordinate units, to make sure they are mutually supporting. Leaders at all echelons evaluate leader and individual training performance and provide feedback to the chain of command, trainers, and those being trained. They also evaluate how well trainers instruct others. The Inspector General of the Marine Corps conducts periodic inspections of training management throughout the Corps. Formal schools and training centers management policy is provided in the Marine Corps order titled, "Management of Marine Corps Formal Schools and Training Centers".

A511 Document/Validate Training Management

Training management should be a *top down* process which starts with the Commandant. The principle ingredient is motivation and all Marines, from the highest level managers to the trainers own stock in the training management process. Validating T&E Policy, Guidance, Goals and Objectives and providing feedback to the appropriate command/management levels is a very important element of the evaluation/certification process. Training management is documented/evaluated using statistical data which can be analyzed in a systematic, structured process. The statistical data is submitted to CG, MCCDC via Record of Proceedings of Course Content Review Boards, subject matter experts, Marine Corps Lessons Learned and USMC Instructional Feedback Forms

A512 Evaluate Value/Merit/Worth of Policy, Plans, Programs, Standards

An instructional program is effective when it allows mastery of learning objectives that are based on Individual and Collective Training Standards, and efficient when it meets instructional objectives by making the best use of resources (e.g. personnel, time, money supplies). Personnel evaluating training and education must be familiar with the types of evaluation, the focus of a evaluation, the instruments used in evaluation, evaluation instrument parameters and the steps for planning and conducting an evaluation.

(The training and education process is dynamic but to a large degree it is reactive, rather than proactive).

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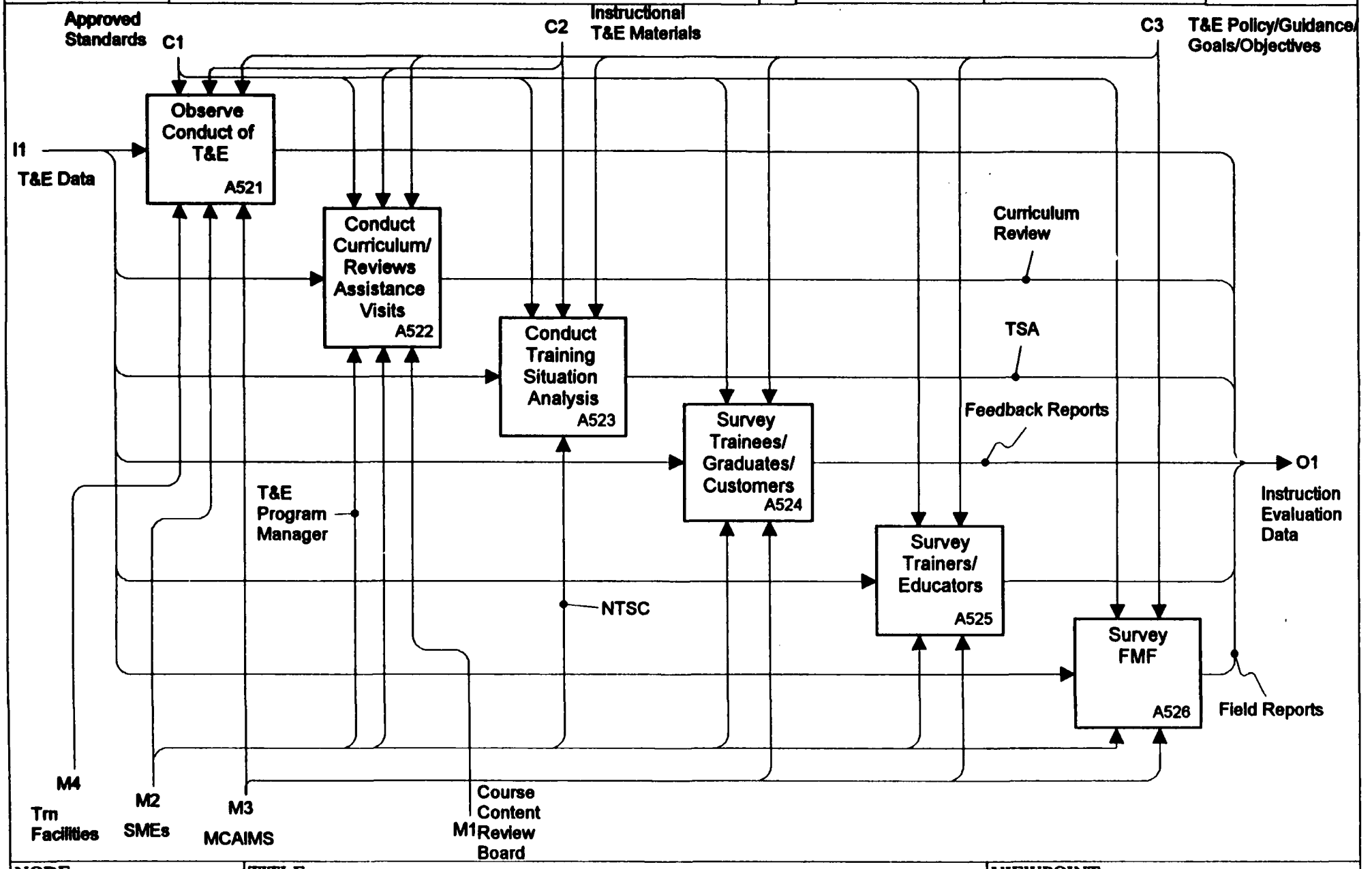

NODE:	TITLE:	VIEWPOINT:
A52	Evaluate Conduct of Training	T&E Program Manager

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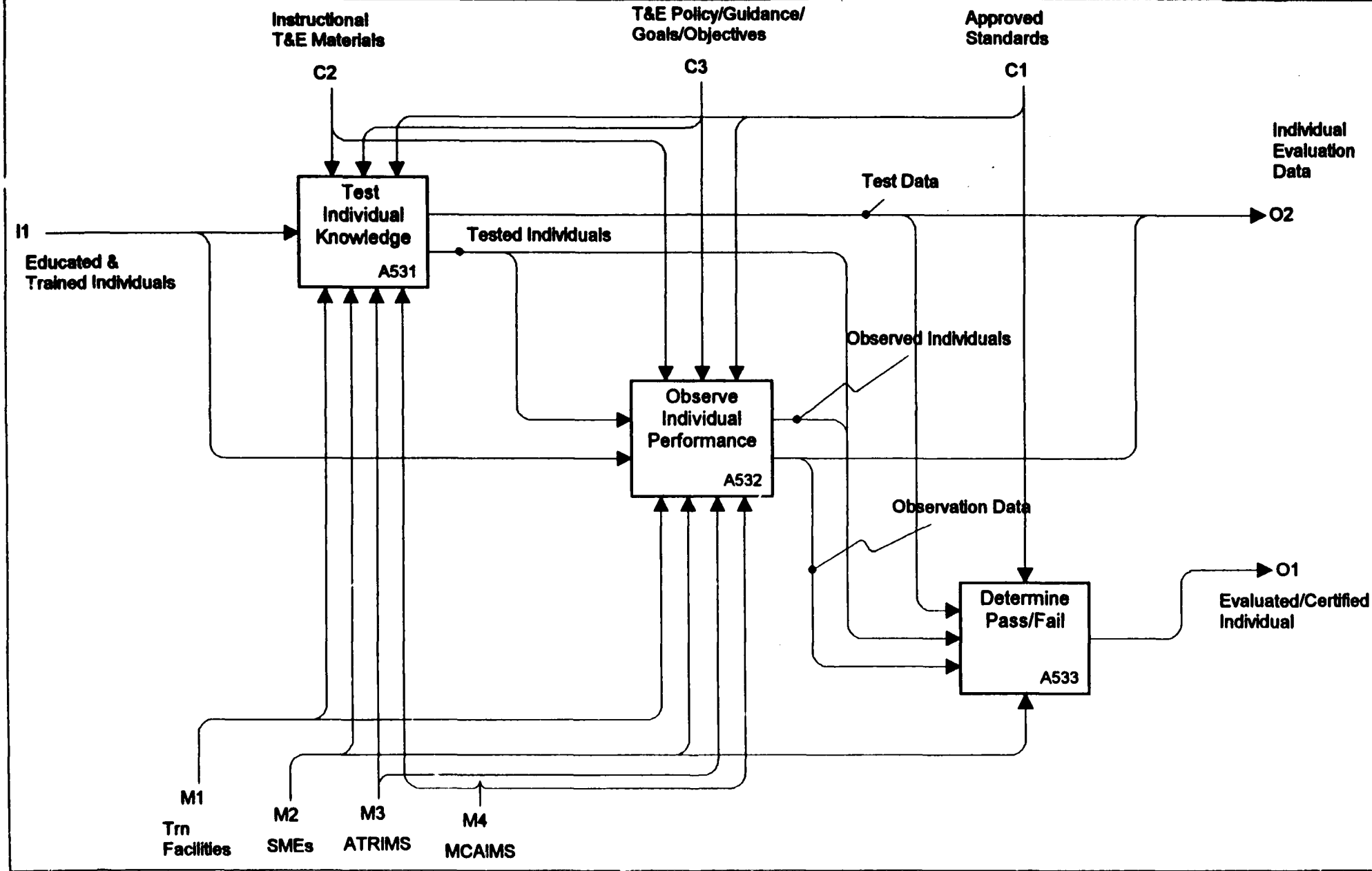

NODE:	TITLE:	VIEWPOINT:
A53	Evaluate/ Certify Individuals	T&E Program Manager

A52: Evaluate Conduct of Training

The purpose of training evaluation is to determine the effectiveness and efficiency of an instructional program. Effectiveness refers to the degree to which students are meeting the learning objectives. Efficiency is concerned with how well instructional personnel (i.e. instructional developers, instructors, evaluators) used available resources (e.g. time, personnel, facilities, equipment). Results provide the basis for revision of the instructional program, if necessary. In addition to the instructional program, an evaluation can focus on and assess student performance, instructor performance, course materials, instructional environment or a combination of these variables.

A53: Evaluate/Certify Individuals

Individual are certified after successful completion of a formal course of instruction which qualifies them to perform a specific task such as instructor, parachutist, scuba diver, etc. Testing differs from evaluations. A test measures proficiency against established MCCRES of ITSS standards. However, it results in a pass-fail rating. During a test, individuals and units strive to meet established standards without deviating from a prescribed process by experimenting or trying innovative techniques.

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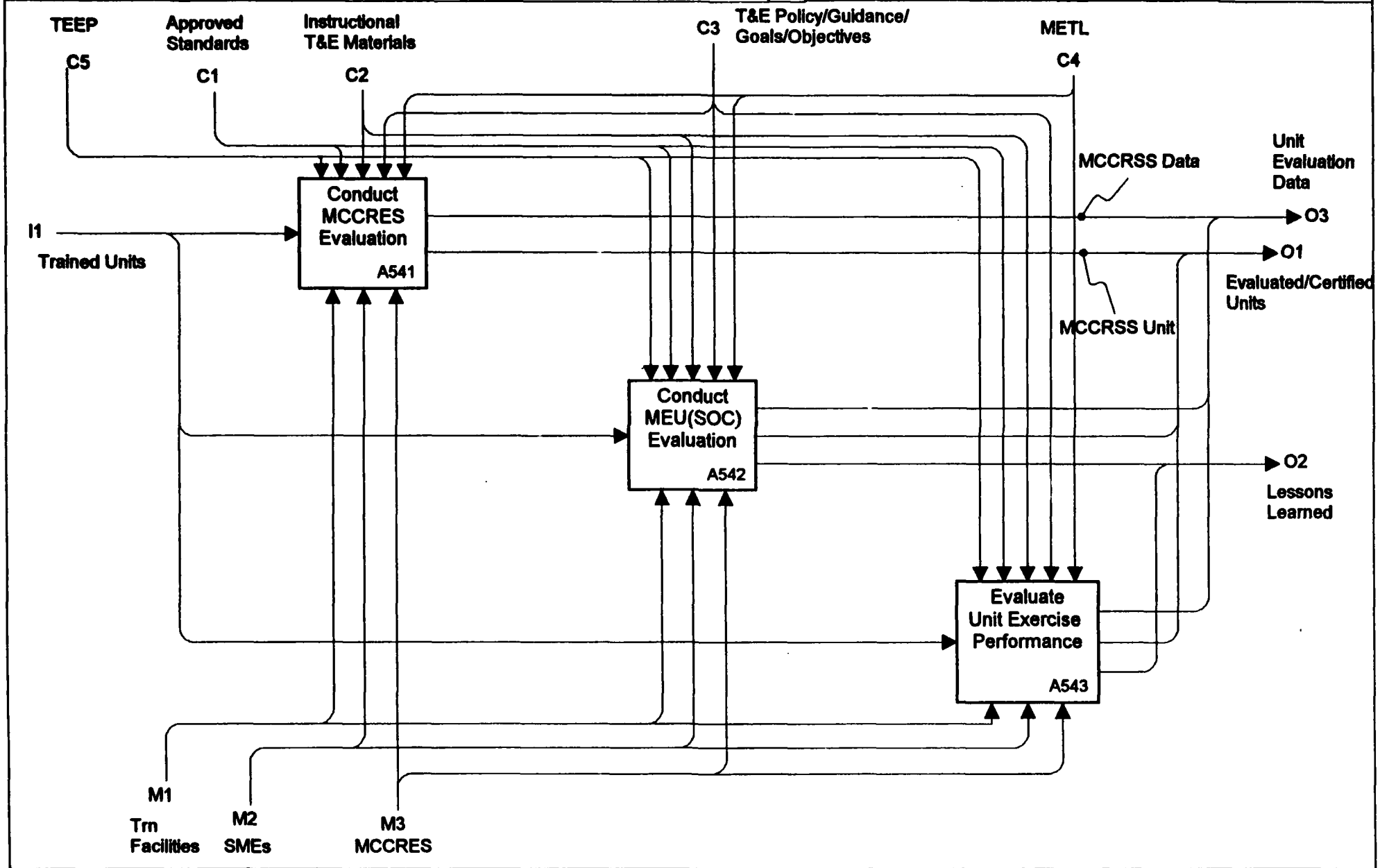

NODE:	TITLE:	VIEWPOINT:
A54	Evaluate/ Certify Units	T&E Program Manager

A54: Evaluate/Certify Units

Once units have trained to a required level of proficiency, they must sustain it. To sustain proficiency, commanders must continuously evaluate performance and design training programs to correct weaknesses and to reinforce strengths. Commanders who design their training programs merely to peak for one or two key events during the year do so at great risk since war may begin without warning.

A541 Conduct MCCRES Evaluation

The MCCRES is an overall program that allows for multiechelon and individual training to develop and to sustain mission proficiency. It is not an event but, rather, the key to sustaining a high level of proficiency. The MCCRES is the continuous process of training, evaluating results, analyzing the feedback, and training again to strengthen weak areas. MCCRES was developed to provide timely and accurate determination of the combat readiness of FMF units. Formal MCCRES evaluations are designed to provide CMC with a readiness assessment of a unit's ability to perform the tasks contained within its METL.

(The Government Accounting Office (GAO) is conducting an evaluation of DoD readiness reporting with primary emphasis on improving the Status of Resources and Training (SORTS) reporting system. FMF units were asked to respond to various questions concerning readiness reporting and identify the most useful indicators of readiness. As a readiness reporting system, FMF organizations noted several problems with the MCCRES. These problems focused on application, enforcement, objectivity, and in the frequency of data collection.

A542 Conduct MEU(SOC) Evaluation

The SOC certification process starts with the evaluation of the MEU/ARG. The joint evaluation is conducted by MARFORPAC/LANT and 3rd/2nd Fleet Commander. The MEU/ARG must successfully compete land and sea missions, typically to include in- extremis hostage rescue, non-combatant evacuation operations, boat raid and tactical recovery of downed aircrew. Upon successful completion of the evaluation recommendation for SOC certification are forwarded to CINCPAC/LANT. CINCPAC/LANT is the certification authority.

A543 Evaluate Unit Exercise Performance

Unit exercises are evaluated using the Mission Performance Standards of MCCRES. Exercise After Action Reports (AARs) cover both the strengths and weaknesses associated with:

- Tactics
- Combined arms deployment
- Command and control
- Communications
- Survivability
- Personnel and logistics support

AARs highlight lessons learned and are a major source of data for the Marine Corps Lessons Learned system. Training readiness data is captured in the AAR by restating the applicable training standards, discussing all events and how they related to bring out the teaching points, and a recommendation for subsequent training to correct weaknesses and sustain strengths.

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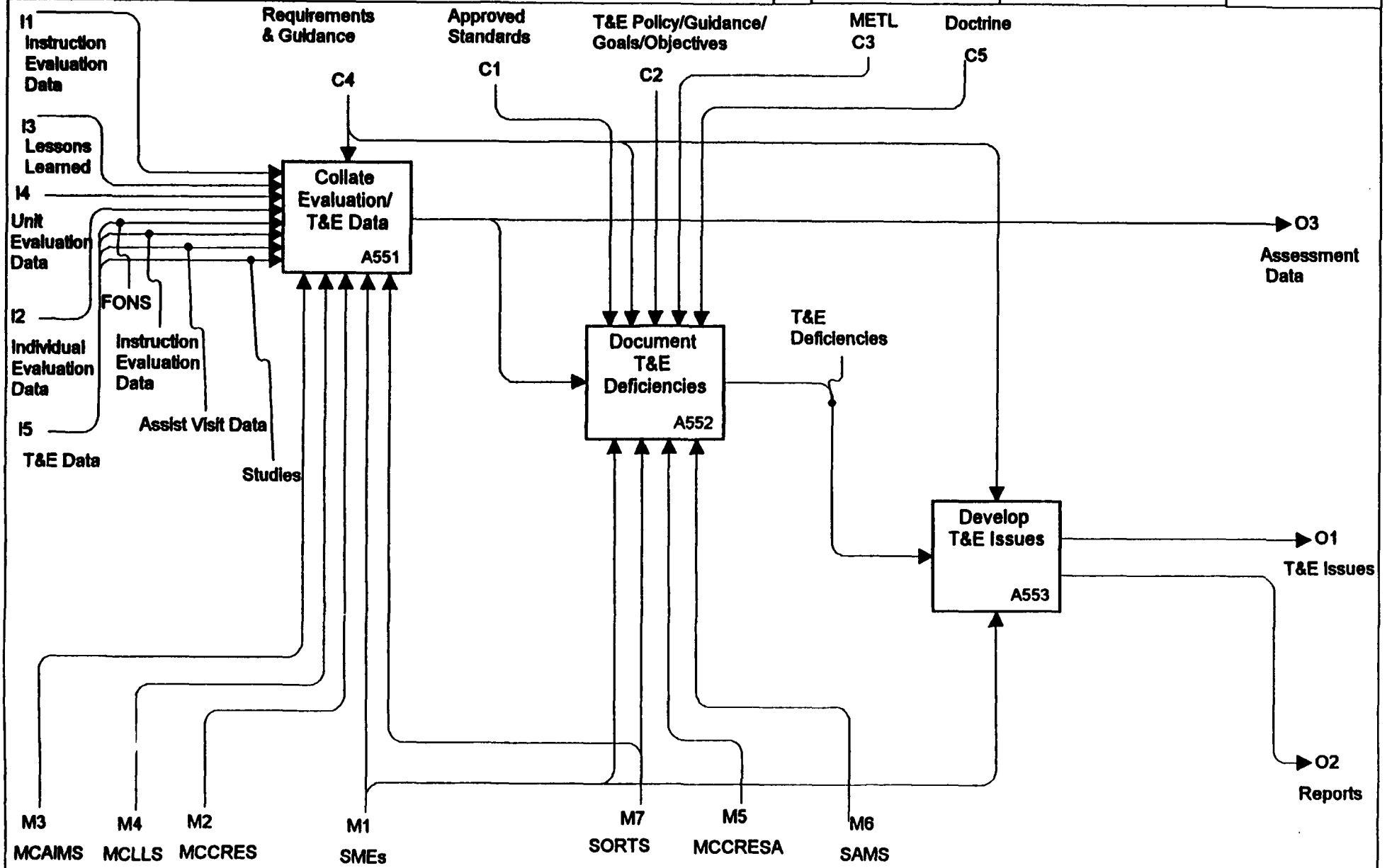

NODE: A55	TITLE: Analyze & Interpret Data	VIEWPOINT: T&E Program Manager

A55: Analyze and Interpret Data

By analyzing and interpreting data, the training program manager is able to produce conclusions, judgements and recommendations as to whether or not the training and education process is efficient and effective in meeting its mission. Efficiency and effectiveness are indicators of training readiness. Appendix C lists over 40 sources of data that contain information relating to the efficiency and effectiveness of the training and education process.

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SECTION 4
DISCUSSION AND RECOMMENDATIONS

4.1 DISCUSSION

This section discusses process improvements, systems integration initiatives, and implementation alternatives that address improvement opportunities identified in Section 3. The following section, Section 5 - Feasibility Analysis, discusses how the following recommendations may be implemented.

4.2 PROCESS IMPROVEMENTS

The Marine Corps Combat Development Process is a "process which formulates battlefield requirements and produces combat-ready Marine Air-Ground Task Forces (MAGTFs) based on fundamental concepts supported by interdependent systems for development of doctrine, training and education, organization, equipment, and facilities and support."[1] The Training and Education process improvements identified during T&E activity modeling and discussed in the following paragraphs, should be integrated with the evolving "TO-BE" Combat Development Process. Process improvements in assessing training readiness and allocating T&E resources can best be served by integrating the outputs of many management systems and tools, some of which are not automated. Appendix E lists data sources identified during the course of this study which may prove valuable in improving training readiness assessment. These systems support all categories of the CDP. Integrating the appropriate and useful data from these sources is a significant challenge. Providing integrated systems support for T&E readiness assessment is consistent with the CDP vision wherein "interdependent systems" support doctrine, T&E, organization, equipment, and facilities and support.

4.2.1 DEFINING TRAINING READINESS

Discussion: Before training readiness can be measured or assessed, one must have some idea of what is being assessed. *Training readiness* is not defined in Service publications. The study team consulted subject matter experts and used a group census approach to define training readiness. As the Marine Corps Training and Education model was being developed, the concept of training

[1] MCCDC CDP General Officer Briefing, 28 Sep 92 and draft Initial Process Model, USMC CDP Version 1.1 16 Nov 93.

readiness was discussed and as many definitions were offered as there were individuals willing to offer them. From a collective evaluation of all inputs, certain elements were clear. First, training readiness must be measurable and not merely subjective. This implied a standards based approach. Next, since the primary objective of the training and education process is to produce and maintain required skills (individual and collective), training readiness should be some measure of how well those skills are evident in the FMF.

Recommendation: The Marine Corps should adopt the following definition of training readiness as a first step in improving training readiness assessment: "*an objective, standards based measure, coupled with the assessment of commanders, of the ability of an individual or unit to perform the required skills and collective tasks which will produce units that can fight and win on today's battlefield*".

4.2.2 ASSESSING TRAINING READINESS

Discussion: The training establishment lacks an objective process that can: (1) Document and quantify resource deficiencies and requirements; (2) Perform an assessment of training readiness based on the impact of T&E deficiencies on CINC, Navy, Marine Corps, and MAGTF mission capability requirements, unit mission essential tasks, and unit mission performance standards, and; (3) Prioritize requirements based on value added to training readiness.

CINCs' missions are derived from national level taskings. Each CINC mission is analyzed to determine the operational tasks that must be completed to achieve mission success. The Marine Corps has identified 20 MAGTF mission areas that support CINC and Navy operational task requirements. The Marine Corps Master Plan lists and prioritizes required mid-term combat capabilities. These capability objectives are specific statements of required operational capability to support MAGTF taskings. Capability objectives are derived from doctrine and can be linked to MAGTF element Mission Essential Tasks/Mission Performance Standards. MAGTF missions should drive METL development which in turn should drive MPS development. This linkage is not well established and needs to be improved.

Mission Performance Standards are a measure of collective performance and establish the evaluation criteria which are to be used to verify that a task has been performed to a satisfactory level. Training

and education programs produce skills to accomplish required tasks and the effectiveness of those programs can be assessed against the established evaluation criteria.

Recommendation: The Marine Corps should adopt a standardized approach to assessing training readiness based on CINC and MAGTF warfighting requirements, doctrine, mission essential tasks, and mission performance standards.

4.2.3 REPORTING TRAINING READINESS

Discussion: T&E resource requirements do not fare well in the POM process because of the inability to satisfactorily articulate the impact of funding T&E needs on warfighting capability.

Recommendation: The Training and Education Division, MCCDC should publish a Marine Corps Training Readiness Assessment report for use by the T&E Division, MCCDC, and program groups during POM development. The assessment report should also be used by the Navy Comptroller to justify green and blue dollar support to Marine Corps training.

4.2.4 ALLOCATING TRAINING RESOURCES

Discussion: In a period of diminishing resources, a smaller Marine Corps, and changing guidance and priorities, the process of allocating resources to optimize training readiness becomes increasingly difficult. Training and education financial managers do not have a quick method of evaluating the impact, on training readiness, of omnibus cuts in the Marine Corps T&E budget. They do not have a method to level resources across appropriation accounts, training categories, and training programs in accordance with CMC, MCCDC, and T&E priorities.

Recommendation: The T&E Division should objectively link Training and Education resource requirements to CINC warfighting requirements, integrated priority lists (IPLs), MAGTF mission essential tasks, mission performance standards, and the Marine Corps Master Plan. This process will support the evolving MAGTF Assessment in the Training and Education category. The T&E Division should work closely with the Integration Division, MCCDC, to implement this recommendation.

4.3 SYSTEMS INTEGRATION

There are over 40 sources of readiness data (see Appendix E) used by various Marine Corps organizations to assess training readiness. One of the objectives of this training readiness improvement initiative is to integrate the useful data from many of these sources to obtain a clearer picture of Marine Corps training.

4.3.1 DATA INTEGRATION

Discussion: The lack of integration and standardization in reporting, collecting, and utilizing training assessment data and insufficient capability to cross-reference training readiness indicators result in incomplete, single dimensional analyses of training needs.

A Data Model would identify the requirements for integration and standardization in reporting, collecting, and utilizing training assessment data. It will ensure that an improved training readiness assessment process is an integral part of the Combat Development Process and the Marine Corps Information Technology Standards-Based Architecture (SBA).

Recommendation: A "key-based" Data Model should be developed to show data integration and standardization requirements and help identify which data elements from various sources should be integrated for use by a training readiness assessment support system. The Data Model should be used as basis for a proof-of-concept for the 3-Tiered Open Environment Tool currently under study by the SBA working group and the Marine Corps Information Technology Standards-Based Architecture.

4.3.2 CONCEPT EVALUATION

Discussion: A decision support system can enhance an improved training readiness assessment and resource allocation process. Decision support systems provide the capability to quickly access multiple readiness assessment data, and perform assessments based on a well defined hierarchial structure, priorities, and user variable criteria. It can also facilitate sensitivity analyses by quickly identifying the "drivers" in an assessment. Sensitivity analysis allows an individual to determine a range of possible alternatives for a given objective. For example, applying resources to fix a deficiency that is not a driver in the assessment process is a waste of resources. A decision support system provides the capability to perform rapid cost-benefit analyses. As discussed in paragraph 4.2.2, a framework for a hierarchal structure linking T&E program deficiencies and needs to

warfighting requirements exists. A training readiness assessment support system can be a useful module in a larger information system supporting the Combat Development Process.

Recommendation: A prototype training readiness assessment support system should be developed for the T&E Division to evaluate an improved Marine Corps Training Readiness Assessment process. The evaluation should include an assessment data base that integrates the outputs of selected stovepipe readiness reporting systems.

4.4 IMPLEMENTATION

4.4.1 FIELDING STRATEGY

Discussion: Fielding a Marine Corps Training Readiness Support System (MCTRSS) to all branches within T&E Division, MCCDC, the Requirements and Integration Divisions, MCCDC, PPO and IG departments at HQMC, each MEF, and MARFORLANT/MARFORPAC/MARRESFOR is easily achievable and should result in widespread use and acceptance of the improved training readiness assessment process.

Recommendation: Based on the outcomes of a prototype evaluation, the training readiness support system should be installed in all branches within T&E Division, MCCDC; the Requirements and Integration Divisions, MCCDC; PPO and IG departments at HQMC; each MEF; and each of the three LANT/PAC/Reserve headquarters.

4.4.2 ALTERNATIVE FIELDING STRATEGY

Discussion: Additional organizations can be added to the MCTRSS network. This is achievable with relatively little added investment costs because MCTRSS is designed to operate on a UNIX based (open architecture) PC network. With Banyan as the backbone network and available to most Marine Corps T&E organizations, there are no additional hardware or network costs. Additional costs are associated with program installation and training. Conversely, organizations can be deleted from the proposed plan, but the savings are minimal.

A fully developed assessment data base, integrating the outputs of various systems with data relating to training readiness may result in the deletion of overlapping, stovepipe reporting systems. Costs

associated with expanding the assessment data base are proportional to the hours required to define and import data. These costs are larger than installation and training costs and could be amortized over several years as the system matures and gains widespread use.

Recommendation: Delay the decision on fielding structure until after prototype evaluation and when the full capabilities of the decision support system can be evaluated against the cost.

SECTION 5
FEASIBILITY ANALYSIS

5.1 DISCUSSION

This section discusses how training and education readiness assessment and resource allocation improvement opportunities identified in Section 3 and the recommendations made in Section 4, may be implemented and supported by the Marine Corps. **It describes the requirements for and objectives of a budget prioritization and resource allocation system to support process improvements and systems integration.** The analysis focuses on adapting an assessment and resource allocation process currently employed by the Joint Staff for use by the Training and Education Division, MCCDC.

5.2 TRAINING READINESS ASSESSMENT

The first step in improving training readiness is to define what is meant by "training readiness". Based on the information gathered for this study, the following definition was recommended; Training Readiness - "*an objective, standards based measure, coupled with the assessment of commanders, of the ability of an individual or unit to perform the required skills and collective tasks which will produce units that can fight and win on today's battlefield*".

Providing a definition of training readiness is not as important as developing a standardized approach to measuring and reporting training and education needs and quantifying the effects of those needs on the required operational capabilities of the warfighters. SORTS does not produce a quantifiable assessment of training readiness. Neither does MCCRES. During discussions with FMF personnel, many individuals expressed concern with the validity of SORTS and/or MCCRES data and the ability of decisionmakers to gain an accurate picture of training and education status through these systems.

5.2.1 ASSESSMENT ELEMENTS

CINCs' missions are derived from national level taskings. These can usually be defined in terms of short sentences: "Seek and destroy enemy submarines in the KARA Sea". Each mission is analyzed to determine the operational tasks that must be completed to achieve mission success. These tasks are identified in CINC and subordinate commander warplans or OPLANS.

The Navy has identified eight broad areas of required operational capabilities to support CINC missions. These are Command of the Sea, Crisis Response, Strategic Deterrence, Sealift, Command and Control, Lattlespace Dominance, Power Projection, and Force Sustainment.

The Marine Corps has identified 20 MAGTF mission areas in support of CINC and Navy requirements. These mission areas serve to focus needs analysis. The Center for Naval Analyses (CNA) conducts Mission Area Analyses (MAAs) as part of the Concept Based Requirements System. Threat assessments and MAAs identify deficiencies in current force capabilities and opportunities to improve these capabilities. An MAA is a structured survey analysis that is based primarily on the subjective views of FMF individuals.

Capability objectives are specific statements of required operational capability to support CINC taskings: For example; "Capability to conduct operational maneuver from the sea on short notice via air or surface means against distant inland targets". The Marine Corps Master Plan lists and prioritizes required mid-term combat development capabilities. Capability objectives are derived from doctrine and can be linked to MAGTF element Mission Essential Tasks / Mission Performance Standards.

Mission Performance Standards are a measure of collective performance. As a minimum, collective training standards consist of a task, the condition under which the task is to be performed, and the standard/evaluation criteria which will be used to verify that the task has been performed to a satisfactory level. Training and education programs produce skills to accomplish the tasks and the effectiveness of those programs can be assessed against the established standard.

A hierarchal framework already exists that links training and education programs with warfighting mission requirements.

5.2.2 JOINT STAFF C4 SYSTEMS ASSESSMENT METHODOLOGY

The primary basis for performing the C4 assessments is Mission Oriented Analysis (MOA). MOA is a specifically tailored version of general systems analysis. MOA provides a systematic methodology for determining and defining missions, functions, and C4 capability objectives (C4COs). The underlying logic for MOA is that it provides a direct linkage of national, strategic goals to C4 requirements. That linkage is: Warfighting Environment; Mission Area; Mission Element; and C4 Capability Objective.

Each Primary Mission is made up of different Mission Areas; each Mission Area involves multiple Mission Elements; each Mission Element generates a number of supporting C4COs; and analysis of the C4COs link C4 programs and unsatisfied deficiencies. Therefore, hundreds or thousands of individual data elements can be generated by the MOA process. Since Warfighting Environments, Mission Areas, Mission Elements, and C4 Capability Objectives will have different priorities, importance, and deficiencies assigned to them, the resulting analysis will involve a large number of interactive calculations.

5.2.3 THE JOINT DECISION SUPPORT SYSTEM

The purpose of the Joint Decision Support System (JDSS) is to provide a structure analytic tool that will support a traceable evaluation of C4 capabilities and ranking of programmatic solutions for any deficiency identified. The information collected from the JDSS process is used by the Joint Staff to assess overall military capabilities and develop guidance and priorities for C4 systems acquisition.

The JDSS is a desktop PC based tool that structures the collected data, simplifies this process, performs the calculations that are required, and provides output reports that support development of the *Global C4 Assessment*. The speed of JDSS makes it an excellent tool for performing "what-if" and sensitivity analyses on the data base as priorities and events change.

The JDSS assessment tool allows the Joint Staff (J6) to thoroughly document and identify C4 needs by quickly assimilating C4 systems assessment and deficiency data from many sources. Based on the established hierarchy and user-generated priorities and dependencies, the JDSS assesses the impact of C4 systems performance on CINC missions, mission areas, mission elements, and capability objectives and prioritizes C4 systems according to the "value added" to CINC warfighting requirements.

C4 systems assessments are the result of applying Multiple Attribute/Multiple Objective Utility Theory of decision making. It is a sophisticated enhancement to the same multiple objective decision process that is the basis for the Marine Corps Program Prioritization System (PPS).

5.2.4 THE MARINE CORPS TRAINING READINESS ASSESSMENT

There is a need for a Marine Corps Training Readiness Assessment to accompany the T&E POM submission and as an input into a larger MAGTF Capability Assessment to show the relationships between force structure, equipment, and training. During data collection for developing the T&E "AS-IS" model,

USMC HQ personnel indicated that T&E resource requirements do not fare well in the POM process because of the inability to satisfactorily articulate the impact of funding T&E needs on warfighting capability. A Marine Corps Training Readiness Assessment structured in similar fashion to the Global C4 Assessment and the MAGTF Equipment Assessment, can fill that void. T&E assessment information that is interrelated to other MAGTF assessment information will provide a linkage that should be useful to decision-makers.

Table 5.1 is a strawman training readiness assessment framework. Forty Capability Objectives are identified in the Marine Corps Master Plan (MCMP). Additional Capability Objectives could be identified to broaden the assessment base. The strawman assessment framework shown in Table 5.1 is further amplified in Appendix F. The assessment hierarchy shows how T&E programs are linked to Mission Performance Standards, Capability Objectives, Mission Areas, etc. When dependencies are assigned based on each level's contribution or importance to a higher level element, the hiearchy becomes an effective tool for evaluating the relative importance of T&E programs to CINC, MEF, and MAGTF missions. Each mission performance standard is evaluated for each MEF using the outputs of selected training readiness indicators from among the possible data sources listed in appendix E. Table 5.2 shows an assessment of mission performance standards that support one capability objective based on available assessment data from the sources indicated. The mid-term (future) assessment is based on the commanders considered judgement and experience, with the assumption that T&E programs and resources in the current USMC/Navy Fiscal Years Defense Plan (FYDP) will be executed. The results of studies such as the CNA Ground Training Readiness Study, initiated to develop a means to measure training readiness of Marine battalions to better determine resources spent and readiness achieved, will strengthen this future assessment. An overall assessment is made by "rolling up" the lower level assessments according to the established hierarchal framework.

Training readiness can be measured by each of the three MEFs (or by the T&E Division as a total Marine Corps assessment) by taking the output of selected sources of readiness data and linking the evaluation of Unit performance to Mission Performance Standards and T&E programs.

STRAWMAN ASSESSMENT FRAMEWORK

CINCS/MEFs - There are 10 CINCs and 3 MEFs

WARFIGHTING ENVIRONMENT

- Peace Through Confrontation
- Lesser Regional Conflict
- Major Regional Conflict
- Theater Nuclear War
- General Nuclear War

NAVAL FORCES OPERATIONAL CAPABILITIES

- Command of the Sea
- Crisis Response
- Strategic Deterrence
- Sealift
- Command and Control
- Battlespace Dominance
- Power Projection
- Force Sustainment

JCS/MAGTF MISSION AREAS/ELEMENTS

There are 20 MAGTF Mission Areas

CAPABILITY OBJECTIVES

MISSION ESSENTIAL TASKS/MISSION PERFORMANCE STANDARDS

TRAINING CATEGORIES

Table 5.1

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MISSION PERFORMANCE STANDARD ASSESSMENT

CAPABILITY OBJECTIVE #1	MCMP COMBAT DEVELOPMENT PRIORITY	CURRENT ASSESSMENT	FUTURE ASSESSMENT
		R/Y	Y

Standard	Training Program	Assessment	Deficiency	Source(s)	New Programs	Future Assm't
BSTS	A	Y		4		Y
	B	Y		3,1		Y
	C	R/Y	I	2	a	Y
MPS 1						
	D	G		5		
	E	Y/G		1,3,5		
	F	Y		4		
MPS 2						
	G	R	II	2,3,4	(b)	R
	H	R	III	1,2,3,4	c	Y
	D	R	IV	1,3,5	d	G
MPS X						
	E	R/Y	V	3,5,6	(e)	R/Y
	J	Y		4		

BSTS -- BASIC SKILL TRAINING STANDARD
MPS -- MISSION PERFORMANCE STANDARD
ITS -- INDIVIDUAL TRAINING STANDARD
( ) UNFUNDED PROGRAM

SOURCE(S) --
1 - MCLLS
2 - SORTS
3 - MCCRES
4 - IG
5 - ATRIMS
6 - FONS
7 - TSA
ETC.

Table 5.2

9308_016b

Figures 5-1 through 5-8 are examples of tables that can be generated to show how current and proposed training and education programs support CINC, MEF, and MAGTF Element mission requirements. **The data contained in the figures are notional and do not reflect current or projected training readiness assessments.** (These tables can be produced in any of several different formats according to user preference.)

A decision support program query in any one of the assessment areas can reveal the "drivers" that have the most impact on the assessment. This sensitivity analysis capability allows the commander or decisionmaker to rapidly assess the validity of the assessment.

The decision support tool has the capability to rank T&E programs within assessment areas and/or categories. This is simply a list of T&E programs displayed in order of merit or relative priority for any assessment area. Since T&E programs are linked to capability objectives (Table 5.2) and capability objectives linked to assessment areas through the hierarchal framework, T&E program drivers can be displayed for any assessment area. Current funding levels can be shown by accessing the FYDP data base.

Figure 5-1 shows how current training and education programs support Naval Forces' Operational Capabilities. A capability value is computed for each operational area that shows the ability of Marine Corps T&E programs to produce skills that support Naval Forces. The capability values shown here are equivalent to the MAGTF Equipment Assessment capability ratings. In the example, Marine Corps T&E programs appear to be deficient in supporting Command of the Sea, Crisis Response, Sealift, and Force Sustainment. The commander's subjective evaluation enters when a determination is made that the Marine Corps focus is more on Crisis Response and Force Sustainment than Command of the Sea and Sealift and therefore those are really the main problem areas.

Marine Corps Training Assessment

By Naval Forces' Operational Capabilities

CURRENT ASSESSMENT

Capability Ratings	C4	C3	C2	C1	Overall
Command of the Sea					C3
Crisis Response					C4
Strategic Deterrence					C3
SEALIFT					C4
C2					C1
Battlespace Dominance					C2
Power Projection					C1
Force Sustainment					C4

Naval Forces' Operational Capabilities

Capability Value

(How well T&E programs support Naval Forces' Operational Capabilities)

Figure 5-1

Figure 5-2 is the same as Figure 5-1 with the addition of "Xs" indicating the expected effect of the sum total of all programming and budget actions taken during the previous POM cycle. In the example, the Marine Corps was able to increase support to Crisis Response at the expense of Strategic Deterrence, C2, Battlespace Dominance, and Power Projection The example also indicates that in the last POM cycle, T&E programs that support Force Sustainment either did not receive additional funding or were not improved enough to overcome anticipated future requirements. If no further actions are taken during the next POM cycle, and there is no major change in mission requirements, future training readiness assessments would probably show a capability profile where the "Xs" appear. A T&E priority for the next POM cycle might be to "fix" T&E support to Force Sustainment.

Marine Corps Training Assessment

By Naval Forces' Operational Capabilities

MID-TERM ASSESSMENT

Capability Ratings	C4	C3	C2	C1	Overall
Command of the Sea	X				C3
Crisis Response		X			C4
Strategic Deterrence		X			C3
SEALIFT	X				C4
C2			X		C1
Battlespace Dominance			X		C2
Power Projection			X		C1
Force Sustainment	X				C4

Naval Forces' Operational Capabilities

Capability Value

(How well T&E programs support Naval Forces' Operational Capabilities)

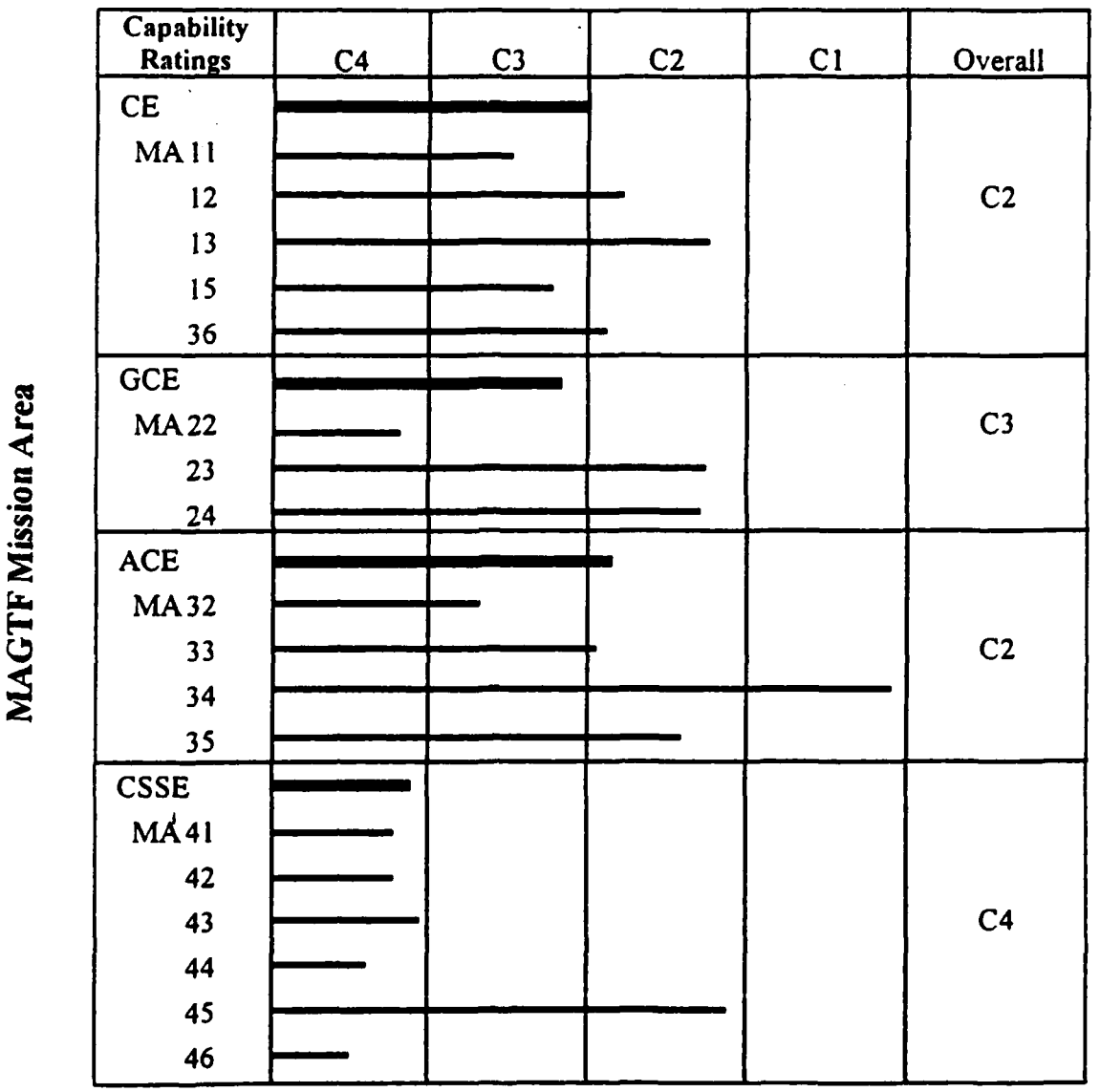
Figure 5-2

Figures 5-3 and 5-4 are current and mid-term assessments of T&E programs supporting MAGTF Mission Areas. In the example shown in Figure 5-3, T&E programs that support Combat Service Support missions are deficient with one exception. Figure 5-4 shows the expected effect of programming and budget actions made during the last POM cycle if there are no major changes to MAGTF mission requirements.

Marine Corps Training Assessment

By Mission Area

CURRENT ASSESSMENT



(How well T&E programs support MAGTF Mission Area)

Figure 5-3

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Marine Corps Training Assessment

By Mission Area

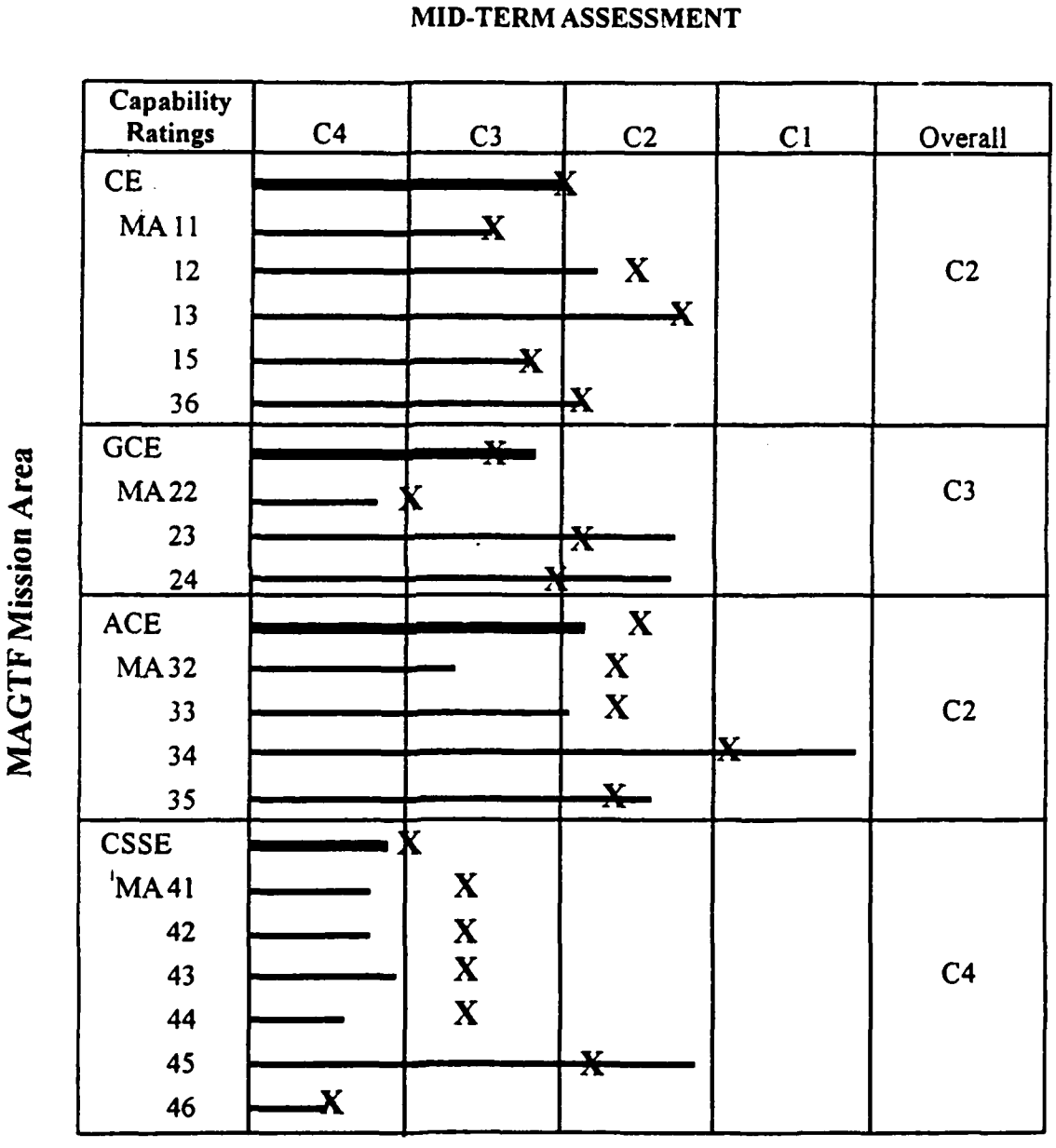

Figure 5-4

Figures 5-5 and 5-6 show the current and mid-term assessment of how T&E programs support each MEF by MAGTF Element. In the example, T&E support to I MEF lags the support to II and III MEF.

Marine Corps Training Assessment

By MAGTF Element

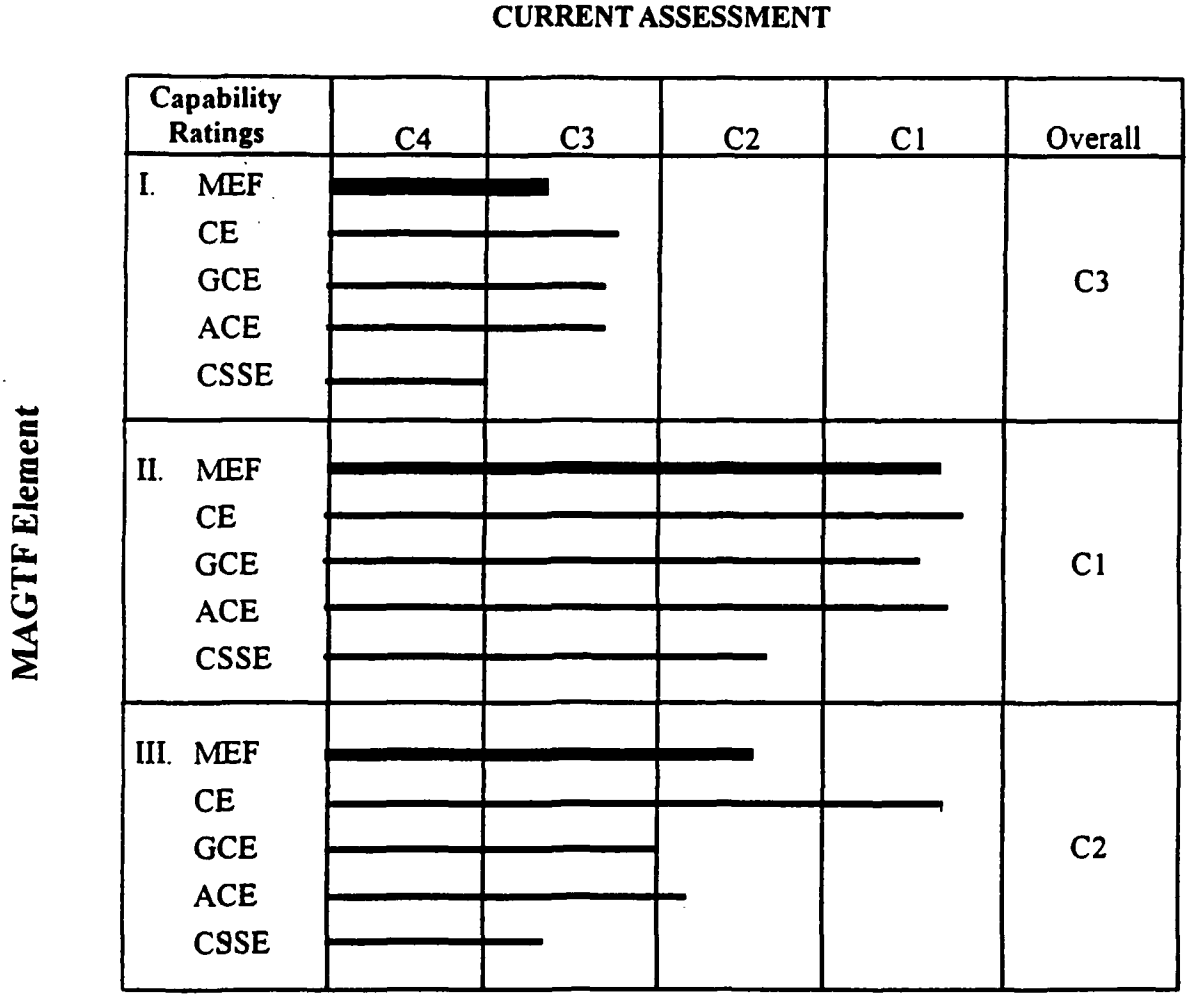

Figure 5-5

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Marine Corps Training Assessment

By MAGTF Element

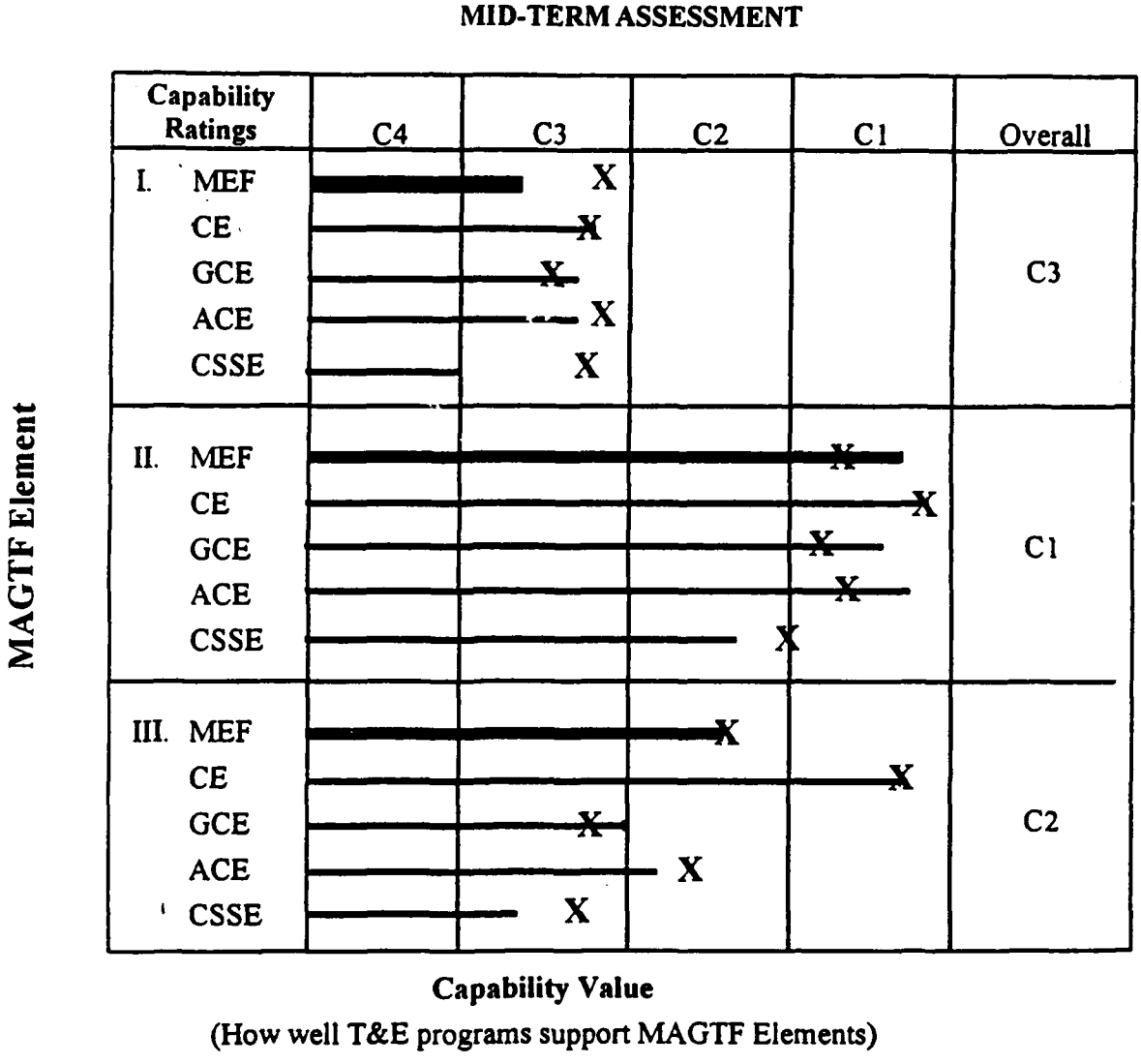
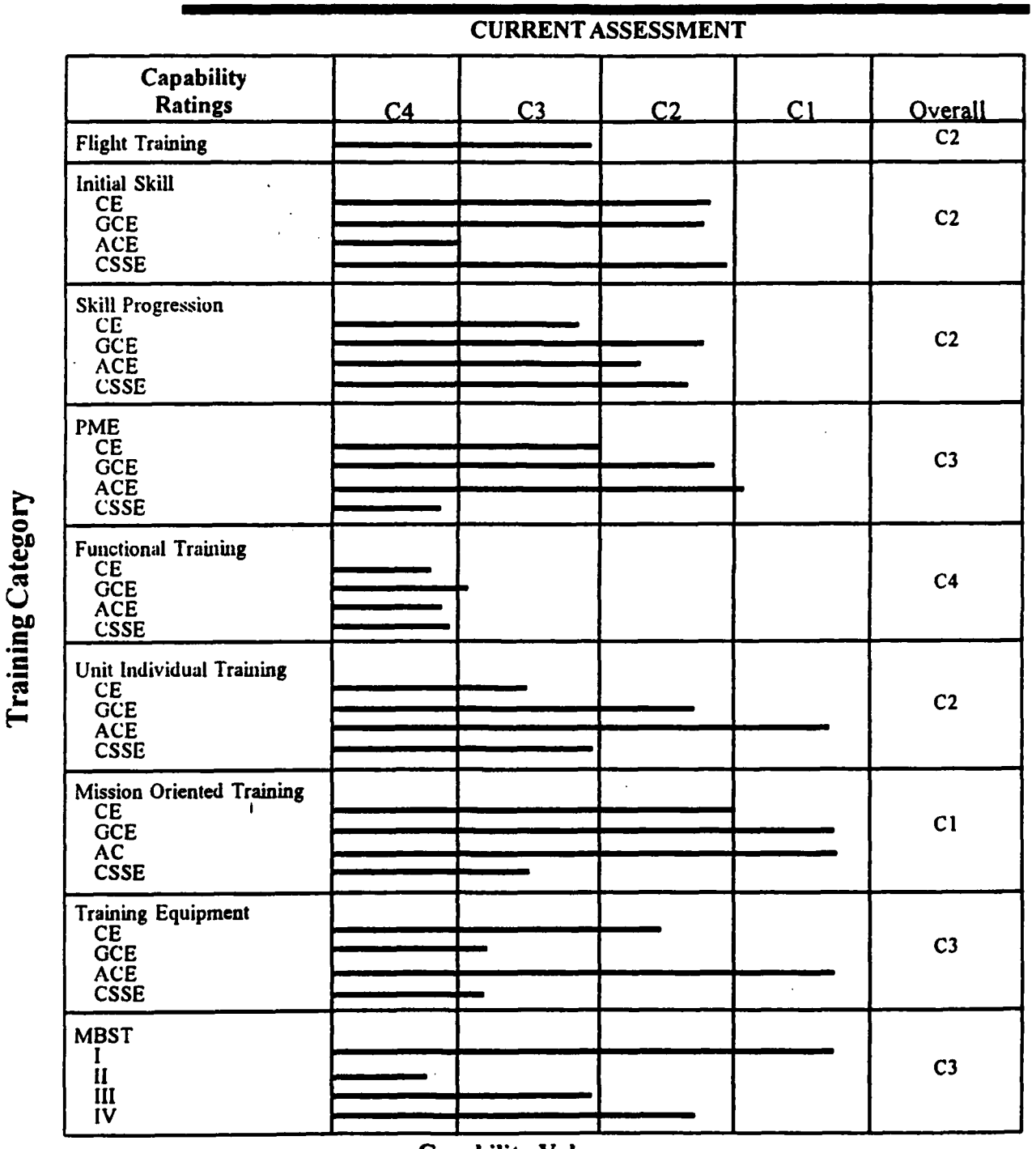


Figure 5-6

Figures 5-7 and 5-8 show the current and mid-term assessment by Training Category.

Marine Corps Training Assessment

By Training Category



(How well T&E programs support Training Categories)

Figure 5-7

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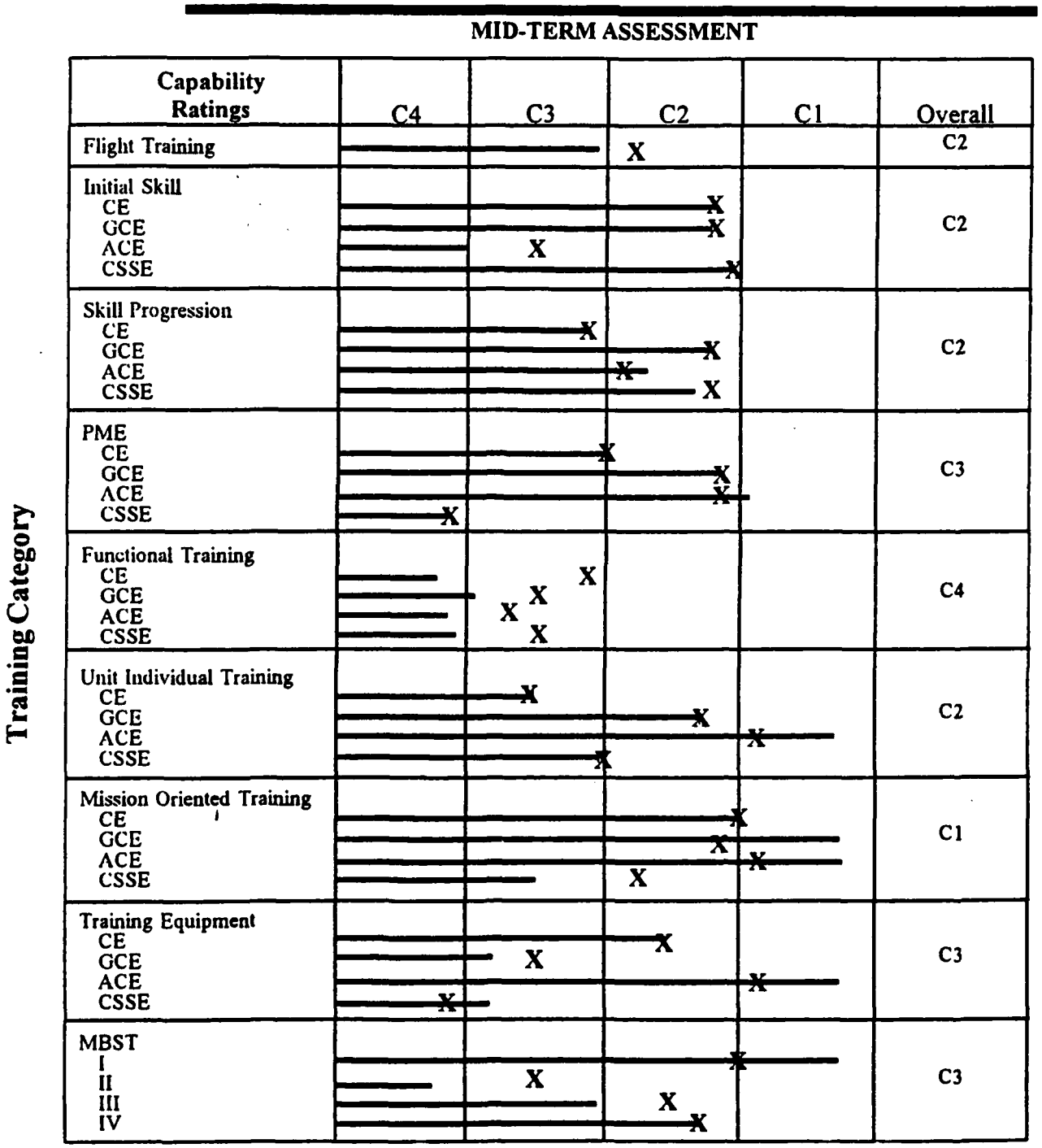
Marine Corps Training Assessment

By Training Category



(How well T&E programs support Training Categories)

Figure 5-8

A factor in developing a strong assessment framework is development of METLs by MAGTF units and command organizations. As noted in Section 3, this is a problem area since compliance with FMFM 0-1 *Unit Training Management Guide* in the area of METL development is inconsistent in the FMF. METLs need to be developed, collected in a central data base, collated to MEF/Organizational Level (i.e. Division, Regiment, Battalion, Unit)/Unit Type, and cross-referenced to MPSs. A long range goal should be to cross-reference ITSs to MPSs and METLs. Continued METL development will strengthen the assessment framework.

5.2.5 THE MARINE CORPS TRAINING READINESS SUPPORT SYSTEM

A Marine Corps Training Readiness Support System (MCTRSS) can be developed by modifying the JDSS. As Table 5.1 shows, the framework for a hierarchial structure linking T&E program deficiencies and needs to warfighting requirements exists and is similar to the JDSS structure. Marine Corps Training and Education, however, is much better suited to the MOA methodology than Joint Command and Control because of its commitment to universal acceptance of standards. Marine Corps training and evaluation is standards based while there are no established performance standards for Joint Command and Control. (Performance standards in this case differ from technical and material standards). The incorporation of performance standards as a basis for assessment adds a new dimension to the Joint Staff assessment methodology.

Modifying JDSS screens and formatting output for Marine Corps T&E do not appear to be major undertakings. Developing the data base will be a significant effort, however maximum use of electronic data transfer should facilitate this process. If the Standard Army Training System (SATS) can be adapted for the Marine Corps, its use could also help data base development.

Table 5.3 lists the sources of assessment data that are likely candidates for incorporation into the MCTRSS data base.

PROBABLE SOURCES OF DATA

MARINE CORPS LESSONS LEARNED (MCLLS)

STATUS OF RESOURCES AND TRAINING SYSTEM (SORTS)

MARINE CORPS COMBAT READINESS EVALUATION SYSTEM (MCCRES)

MISSION AREA ANALYSES (MAAs)

IG READINESS ASSESSMENT EVALUATIONS

COURSE CONTENT REVIEW BOARD/TRAINING SITUATION ANALYSES

AVIATION TRAINING AND READINESS INFORMATION MANAGEMENT SYSTEM (ATRIMS)

FLEET OPERATIONAL NEEDS STATEMENTS (FONS)

DoD FISCAL YEARS DEFENSE PLAN (FYDP)

Table 5.3

A "key-based" Data Model needs to be developed to show which data elements from each source should be brought into the data base. The Data Model will be the basis for development of a Marine Corps T&E Data Dictionary. The Data Model and Data Dictionary will ensure that the Training Readiness Assessment process is an integral part of the Combat Development Process and that the MCTRSS can be a useful module in a larger information system supporting the Combat Development Process and the Marine Corps Information Technology Standards-Based Architecture.

5.3 RESOURCE ALLOCATION

In a period of diminishing resources, a smaller Marine Corps, and changing guidance and priorities, the process of allocating resources to optimize training readiness becomes increasingly difficult. Training and education financial managers do not have a quick method of evaluating the impact, on training readiness, of omnibus cuts in the Marine Corps T&E budget. Nor do they have a method to level resources across appropriation accounts, training categories, and training programs in accordance with CMC, MCCDC, and T&E priorities.

5.3.1 THE RESOURCE ALLOCATION PROCESS

Node A3 in the T&E "AS-IS" Activity Model describes the T&E Resource Development Process. The most rigorous process for quantifying T&E resource requirements is in Training Support Equipment largely due to the fact that T&E support equipment resource requirements are supported by a training equipment assessment and prioritization methodology. This concept can be enhanced and expanded to all areas of training and education.

The JDSS resource allocation & leveling module takes the C4 program prioritization scheme from the assessment module, the current funding profile in the DoD Fiscal Years Defense Program (FYDP), and user variable criteria such as organizational priorities, higher level guidance, and fiscal constraints to recommend a funding profile across all appropriation accounts.

Since the resource allocation module is linked to the assessment module, the effect of adding resources to or deleting resources from specific C4 programs can be quickly assessed within the same framework as the current assessment. This is a useful function, particularly during "end game" when "what-if" drills seem to come in a seemingly endless stream.

Appendix F shows a strawman resource allocation framework. Inputs to the Resource Allocation module are:

1. T&E Total Obligational Authority;
2. Prioritized list of T&E programs (from the assessment module);
3. Current FYDP budget by appropriation account for each program;
4. Funding prioritization framework (MCMP T&E mid-term objectives/implementing actions and SEMP T&E goals and objectives); and
5. T&E funding and user constraints (i.e. "fenced programs").

Items 4 and 5 are an interactive process which produces a recommended funding profile for each program considered. A group decision methodology similar to the delphi process used in Marine Corps POM development can be adapted to the resource allocation process if there is a requirement and utility for the enhancement.

Specific functional requirements, displays, user interactions, and reports generation capabilities of the resource allocation module will be more fully developed during Phase II of the training readiness assessment improvement project. The strength of this module is in its ability to support all T&E branches with T&E funding or programmatic responsibilities in an integrated manner.

5.3.2 SUMMARY

The ability to objectively link Training and Education resource requirements to CINC warfighting requirements and Integrated Priority Lists (IPLs), MAGTF mission essential tasks,mission performance standards, CMC priorities, CG MCCDC priorities, and T&E priorities and to rapidly assess the impact of resource decisions will improve the T&E input to the Marine Corps POM process and ultimately result in better utilization of available resources. An improved Marine Corps training readiness assessment and resource allocation process will provide a solid training assessment continuum from FMF T&E requirements submission to Congressional Appropriation.

The resource allocation module within JDSS can easily be modified for Marine Corps use and will interface well with the current Marine Corps Planning and Programming System. The ability to quantify the effect of funding a T&E program according to the established assessment framework and priorities is a solid cost-benefit analysis that will be useful at all levels during the POM-budget cycle and to the PEG and PWG for their overall cost-benefit analyses. Resource allocation is based on the concept that

the prioritization order in the system determines the value or importance of the project. This is referred to as Value Based Budgeting.

During the course of this study, the Standards Branch, T&E Division, MCCDC, began investigating the feasibility of adapting an Army training system to support standards development and related training functions. A Marine Corps "missionized" version of the Standard Army Training System (SATS) or an improved MCCRES, may be helpful in establishing the METL-MPS-ITS linkage.

5.4 MAJOR DECISION POINTS

Date	Decision	Criteria
November, 1993	Improve Training Readiness Assessment	Needs Analysis Progress Reports/Briefings
December, 1993	Develop Prototype Assessment Support System	Needs Analysis Draft Report
February, 1994	Assessment Framework	Needs Analysis Final Report
April, 1994	Data Base Structure	Data Model
June, 1994	MCTRSS Functionality	Overview Functional Description
November, 1994	Implementation	Prototype Demonstration

APPENDIX A

NEEDS ANALYSIS STUDY OUTLINE

- Conduct Strategic Analysis:
  - Define project scope
  - Develop framework for entire effort (Phase I, II, III)
  - Define viewpoint ("USER")
  - Identify and assess major players and their potential impact on the project
  - Develop preliminary project missions statement
  - List project goals and objectives
  - Determine project assumptions
  - Describe project constraints
  - Identify USMC participants in project
  - Develop USMC participant requirements (anticipate four sessions of not more than three hours each of team participation plus interviews with data collection and validation.)
  - Identify organizations external to the USMC to be visited
  - Identify preliminary improvement opportunity areas
  - Development visitation plan and data/info requirements

- Validate scope of effort with Marine Corps Technical Representative:

- Conduct Preliminary Analysis:
  - Identify/review documents describing/controlling training/education, readiness assessment and resource allocation
  - Identify/review previous efforts
  - Identify/coordinate with current, related effort
  - List functions of all MCCDC Divisions
  - List functions of all Training and Education Division Branches
  - Determine training and education - related functions selected USMC organizations and staff agencies
  - Collect data associated with the inputs, controls, outputs and mechanisms (ICOMs) for:
    - Guide training and education
    - Analyze/Design/Develop training and education
    - Develop training and education resources
    - Implement training and education
    - Evaluate/certify training and education

- Build IDEF Model (AS-IS) of the Training and Education System:
  - Determine scope, purpose, viewpoint
  - Build a node tree
  - Build a strawman through A0 and AX level (X=1-5)
  - Validate A-0 and A0 with TR
  - Build A.1 strawman (Decompose A.1)
  - Build A.2 strawman (Decompose A.2)
  - Validate A.1 and A.2 with a USMC team
  - Build A.3 strawman (Decompose A.3)
  - Validate A.3 with a USMC team
  - Build A.4 strawman (Decompose A.4)
  - Validate A.4 with a USMC team

- Build A.5 strawman (Decompose A.5)
- Validate A.5 with a USMC team
- Complete the "AS-IS" model
- Complete activity glossary
- Complete ICOM glossary
- Complete the improvement opportunity areas
- Identify "requirements" for "TO-BE" model
  - Changes to business rules
  - Changes to data/information flows
  - Changes to processes/activities
  - Identify AIS requirements
- Identify elements to be included in a demonstration prototype MCTRSS model
- Validate "AS-IS" model, requirements for "TO-BE" model, and prototype elements with all teams

- Data validation procedures to be followed at each IDEF Team Workshop
  - Maximum number workshops per team will be four
  - Maximum workshop length will be three hours
  - Minimal IDEF training prior to each session
  - Review/validate process
  - Define all inputs, controls, outputs, mechanisms
    - Discuss/validate outputs
      - Identify customers of each output
      - Identify performance measures
    - Discuss/validate controls
    - Discuss/validate inputs
    - Discuss/validate mechanisms
  - Identify data flows
  - Discuss issues/problems/deficiencies in each activity

- Build Final Report:
  - Prepare a Statement of Feasibility for development of a Marine Corps Training Readiness Support System and include a demonstration prototype MCTRSS model
  - Identify the requirements and objectives for a training resources allocation system that relates resources expended to mission accomplishment and training readiness
  - Validate technical feasibility with programmers
  - Outline Phase II framework
  - Develop Phase II cost estimates

- Complete Draft Needs Analysis Report:
  - Validate with all teams
  - Revise as required
  - Submit to Marine Corps Technical Representative for review
  - Revise as required and submit the final Needs Analysis Report to the Marine Corps Technical Representative

APPENDIX B

ORGANIZATIONS/UNITS VISITED/PARTICIPATING IN MCTRSS PHASE I

Headquarters Marine Corps
- Director of the Marine Corps Staff (SGS)

- Aviation Department
  - Aviation Weapons Systems Requirements Branch
  - Aviation Logistics Support Branch
  - Aviation Manpower Support Branch

- Manpower and Reserve Affairs Department
  - Personnel Procurement Division
  - Manpower Policy, Plans, Programs and Budget Branch
  - Manpower Control Branch
  - Manpower Information Systems Field Support Branch
  - Equal Opportunity Branch
  - Family Programs Branch
  - Reserve Affairs Division

- Installation and Logistics Department
  - O&MMC Budget Branch
  - Logisitics Policy Manpower and Analysis Branch
  - Logistics Plans and Operations Branch
  - Material Policy and Readiness Branch

- Plans, Policies and Operation Department
  - Operations Division

- Command, Control, Communications and Intelligence Department
  - Standards and Architecture Branch
  - Central Data Processing Activity

- Requirements and Programs Division
  - Program Development and Coordination Branch
  - Audit and Review Branch

- Inspector General of the Marine Corps
  - Readiness Division

Marine Corps Systems Command
- Manpower, Personnel and Training Logisitics Element Manager

- Marine Corps Combat Development Command
  - Training and Education Division
    - Standards Branch
    - Training and Education Resources Branch
    - Training Programs Branch
    - Plans, Policies and Integration Branch
    - Manpower, Programming and Budgeting Branch
    - MAGTF Staff Training Program Branch
  - Marine Corps University
  - Warfighting Development Integration Division
  - Concepts and Plans Division
  - Requirements Division
  - Coalition and Special Warfare Division
  - Studies and Analysis Division
- Marine Corps Institute
- Naval Doctrine Command
- Landing Force Training Command Atlantic
- Marine Forces Atlantic
  - G3
  - Force Inspector
  - II Marine Expeditionary Force
    - G3
    - Information Systems Management Officer
    - 2ND Marine Division
      - Deputy G3
      - Director Division Schools
      - S3 2nd Marine Regiment
      - S3 8th Marine Regiment
      - S3A 10th Marine Regiment
      - S3A 2nd Amphibian Assault Battalion
      - S3 Training 2nd SRIG
    - 2ND Marine Aircraft Wing
      - G3 Training
      - MWSG-27 Training
      - MACG-28 Training
      - MAG-14 Training
    - 2ND Force Service Support Group
      - G3 Training
      - S3 2nd Landing Support Battalion
      - S3 2nd Supply Battalion

- Marine Corps Base, Camp Lejeune, North Carolina
  - Marine Corps Engineer School
  - Marine Corps Service Support Schools
  - School of Infantry

- Center for Naval Analyses

APPENDIX C

CROSS-FUNCTIONAL TEAMS COMPOSITION

Team A - 1 (T&E Planning and Management)

- Plans, Policies and Integration Branch, T&E Division, MCCDC
- Doctrine Division, MCCDC
- Studies and Analysis Division, MCCDC
- Manpower Plans and Policies Division, M&RA, HQMC
- Aviation Plans, Policy and Requirements Division, A, HQMC
- Command and Control Interoperability Division, $C4I^2$, HQMC

Team A - 2 (T&E Assessment/Readiness)

- Standards Branch, T&E Division, MCCDC
- Warfighting Development Integration Division, MCCDC
- Concepts and Plans Division, MCCDC
- Readiness Division, IGMC, HQMC
- Reserve Operations and Readiness Branch, M&RA, HQMC
- Current Operations Branch, PP&O, HQMC
- Audit and Review Branch, P&R, HQMC
- Material Policy and Readiness Branch, I&L, HQMC

Team A - 3 (T&E Resource Allocation)

- Manpower, Programming and Budget Branch, T&E Division, MCCDC
- Requirements Division, MCCDC
- Training and Education Support Branch, T&E Division, MCCDC
- Training LEM, MARCORSYSCOM
- Logistics Policy, Manpower and Analysis Branch, I&L, HQMC
- Requirements, Programs and Evaluation Branch, P&R, HQMC
- Audit and Review Branch, P&R, HQMC
- Manpower Policy, Programming and Budgeting Branch, M&RA, HQMC

Team A - 4 (Conduct of Training/Education)

- Training Programs Branch, T&E Division, MCCDC
- Marine Corps Institute
- Marine Corps University, MCCDC
- MAGTF Staff Training Program Branch, T&E Division, MCCDC

APPENDIX D
ICOM DEFINITIONS

AC MOS ITS: Aviation Combat MOS Individual Training Standard. Air Combat Element ITSs define the measures of performance that are to be used in diagnosing individual performance and evaluating instruction for officers and enlisted Marines in aviation MOSs.

AC Unit MPS: Air Combat Unit Mission Performance Standards. AC Unit MPSs are criteria that specify mission and functional area unit proficiency standards for aviation combat, support and combat service support units.

Admin Support: All support not directly involved in the actual training and educating of individuals and units.

Aircrew Standards: Aircrew as defined in the T&R Manual is a collective term which applies to all categories of personnel in a flight status either as crew or noncrew members. Proficiency, as defined in the T&R Manual, is a measure of achievement of a specific skill by an individual. Collective training standards are explained in the T&R Manual as training that the squadron/battalion as an entity must complete to certain minimum standards and levels of proficiency to enable mission completion.

AIS: Automated Information Systems.

Apportionment: The determination and assignment of the total obligation authority (TOA) by percentage.

Approved POM: The Marine Corps Program Objective Memorandum (POM) that has been reviewed and approved by the Secretary of Defense.

Approved T&E Issues: Any T&E issue that has been approved by an individual empowered with approval authority.

Approved T&E Needs: A perceived training and/or education need that has been analyzed by the Training and Education Division, MCCDC, determined to be a "real" need and validated for further analysis to determine intervention alternatives.

Approved Standards: Any Standard that has been approved by an individual empowered with approval authority.

Assessment Data: Data with training and education application produced as a result of collating and analyzing Evaluation Data.

Assist Visit Data: Information obtained as a result of visits to units or organizations by higher headquarters to determine the validity of a unit's reported status, gauge preparedness to deploy/employ rapidly and/or detect trends impacting readiness. Examples are Inspector General of the Marine Corps (IGMC) Readiness Assistance Team and Field Supply Maintenance Analysis Office (FSMAO) Evaluations. The IGMC identifies and analyzes factors which may inhibit or reduce readiness of Marine forces and coordinates necessary corrective action. FSMAO identifies and assists in the resolution of discrepancies/problems by recommending corrective action such as incorporation of training, clarification or misinterpretations and providing guidance.

ATRIMS: Aviation Training and Readiness Information Management System. ATRIMS is a special purpose training management tool that automates the management of the T&R syllabi. ATRIMS is based on the aircrew training syllabi contained in the Aviation Training Readiness Manual. It can be used to analyze aircrew syllabi effectiveness, to evaluate aircrew performance and to project the most efficient use of training flight hours at the lowest command levels.

ATRRS: Automated Training Requirements and Resources System. ATRRS is an automated system that contains information on Marines trained in Army schools.

Attrited Individuals: Individuals who fail to meet the requirements of a formal course of instruction and are dropped from a training track. These individuals may be reassigned to a more appropriate training track.

ATSS: Aviation Training Support System. ATSS is a Navy system that enables aviation training program managers to author, edit, review and update training materials on-line, to monitor the scheduling of aviation-related training resources, and to merge training resource and production data to produce significant measures of training performance.

Authorization: Congressional action authorizing the expenditure of funds.

Available Resources: Resources currently available for the conduct of training (includes training support and training facilities).

Aviation Maintenance Standards: Individual Training Standards for aviation maintenance personnel that are promulgated in the MATMEP.

AWS/CCSC/CLS: Amphibious Warfare School/Command and Control Systems Course/Career Level School. Career level professional military education designated to educate company-grade officers. This level of officer education reinforces service values, develops warfighting skills, enhances leadership and decision-making ability and improves management and communications skills.

Basic Trained Officers: Officers who have successfully completed instruction at The Basic School.

Basic Marine: A person who has enlisted in the Marine Corps and has successfully completed recruit training at one of the two Marine Corps Recruit Depots.

BNA: By Name Assignment. BNA is an automated manpower system that assigns individuals to schools and tracks them through to school completion.

Budget Execution Data: Prior year(s) actual expenditures.

Budget Issues: Issues that are developed during budget preparation or during budget execution that must be resolved outside the T&E resource development process. Resolution may or may not involve the infusion or re-allocation of resources.

Capability Review Data: Information obtained during the Combat Development Capability Review System process as implementing actions required to satisfy a capability deficiency in training.

Capstone/JFOWC/GOL: Capstone/Joint Flag Officer Warfighting Course/General Officer Level School. General Officer-level education that is joint in nature and focuses on theater-level joint and combined operations and on the highest levels of strategy integrating the components of national power to achieve national objectives.

CAX: Combined Arms Exercise. An exercise conducted at the Marine Corps Air-Ground Combat Center, Twentynine Palms, California, which focuses on the maneuver battalion and emphasizes coordination of supporting arms and execution with live fire.

CCRBs: Course Content Review Boards. A board convened at least annually by formal schools/training centers to record information and make recommendations to improve the effectiveness and efficiency of an instructional program.

CFX: Command Field Exercise. The CFX is a field training exercise (FTX) with reduced combat unit and vehicle density, but with full command and control, combat support and combat service support involvement.

CODAP 80: Comprehensive Occupational Data Analysis Program. A program to objectively describe the OccField structure in terms of actual task performance.

COE: Concept of Employment. A detailed concept for equipment operations.

Commanders: Individuals in a military command position/billet.

CPX/FCX: Command Post Exercise/Fire Coordination Exercise.

CPX: Command Post Exercises are medium-cost, medium-overhead training exercises that may be conducted in garrison or in the field. In garrison, CPX's are normally expanded to include map exercise using tactical communication systems and personnel in a command post environment. Successful CPX's are conducted under battlefield conditions. To validate staff and unit procedures, tactical exercises integrate nuclear and chemical weapons employment; NBC warning and reporting; reconnaissance; and smoke operations.

CS & CSS Unit MPS: Combat Service and Combat Service Support Unit Mission Performance Standard. CS & CSS Unit MPSs are criteria that specify mission and functional area unit proficiency standards for combat service support units.

CS & CSS MOS ITS: Combat Service and Combat Service Support MOS Individual Training Standard defines the measures of performance that are to be used in diagnosing individual performance and

evaluation instruction for officers and enlisted Marines in combat service and combat service support MOSs.

CSC/SAW/ILS: Marine Corps Command and Staff College/Marine Corps School of Advanced Warfighting/Intermediate Level School. Professional Military Education designed to educate junior field grade officers at the intermediate-level which focuses on the tactical employment of larger units at the operational level of war. It is also the principle level of learning "jointness." Emphasis changes from skill training to the development of an officer's analytic capabilities and creative thought processes.

Current Capability Value: A value for the level of current capability assigned to each capability set within the mission area.

Curriculum Review: Evaluation of all instruction conducted within a school to included outlined specific topics and learning objectives.

Delivery System: The instructional method and media used to present the instruction.

Disbursements: Funds disbursed (obligated and spent) to execute T&E programs.

Doctrine: The fundamental principles by which the military forces guide their actions in support of national objectives.

Draft T&ENS: Draft Training and Education Needs Statement. A statement that defines a perceived training development process. Also see T&E Needs below.

Drills: Battle/tactical exercises designed to prepare a unit or team to perform a tactical technique or procedure through progressive repetition. They are used, principally, to train small units to perform tasks requiring a high degree of teamwork, such as fire and maneuver actions in danger areas, and counter-ambush techniques.

ECP: Enlisted Commissioning Program. A program through which enlisted Marines with proven qualifications can be trained and evaluated for commissioning as an officer. The Marine Corps Enlisted Commissioning and Education Program (MECEP) is included in this definition.

Educated & Trained Individuals & Units: Personnel and units that have been educated or trained at any level in the T&E process.

Equipment Funding Status: A determination of all resources programmed and or budgeted for T&E equipment by fiscal year.

Equipment Issues: Training equipment issues developed during the planning process that must be resolved outside the T&E resource development process. Resolution may or may not involve the infusion or re-allocation of resources.

Evaluated/Certified Units: Units that have been evaluated and/or certified such as a Marine Expeditionary Unit (Special Operations Capable) (MEU(SOC)). A MEU(SOC) is a Marine Air-Ground Task Force (MAGTF) which is normally organized around a Battalion Landing Team, Reinforced Helicopter Squadron and Logistic Support Unit. The MEU(SOC) has enhanced training and the addition of specialized equipment to allow the MAGTF to execute the full range of missions, conventional and selected military operation assigned by the CINC, Fleet or Joint Task Force Commander.

Evaluated/Certified Units & Individuals: Units and/or Individuals that have been evaluated and/or certified.

Execution Assessment: A determination of the ability to fully execute (expend funds) for a T&E program based on actual expenditures/obligations during the current fiscal year to date.

Exercise/Drill Plan: A plan for conducting exercises and/or drills.

FCX: Fire Coordination Exercises are medium-cost, reduced-scale exercises conducted to exercise the command and control skills of the leadership of the unit through the integration of all organic weapons systems, as well as indirect and supporting fires.

Feedback Reports: Reports from the FMF that identify strengths and/or weaknesses regarding training and education.

Field Reports: Reports from the FMF that identify strengths and/or weaknesses regarding training and education.

Financial Managers: Individuals assigned to a financial management billet/position who have the responsibility for resourcing T&E programs.

FMF Publications: Fleet Marine Force Publications that contain doctrine, tactics, techniques and procedures for warfare operations peculiar to the needs of the Marine Corps.

FONS: Fleet Operational Need Statements. FONS are direct inputs from the FMF which normally address equipment shortfalls. They create requirements not otherwise identified in MCLLS, MAA or the MCMP.

FTX: Fleet Training Exercises; Exercises conducted under simulated combat conditions in which troops and armament of one side are actually present. Forces or equipment of the opposition may be either imagined or partially or fully present.

Funding Documents: Financial documents that identify the source of funds and authorize their expenditure.

GC Unit MPS: Ground Combat Unit Mission Performance Standard, GC Unit MPSs are criteria that specify mission and functional area unit proficiency standards for ground units.

GC MOS ITS: Ground Combat MOS Individual Training Standard. GC MOS ITSs define the measures of performance that are to be used in diagnosing individual performance and evaluation instruction for officers and enlisted Marines in ground MOSs.

Hardman/MPT Data: Manpower, personnel and training requirement estimates developed throughout the acquisition process.

HQF: Headquarters Master File. The HQF is the Marine Corps' automated personnel data base which contains some training data on individual Marines.

Individual & Unit Training Reports: Information pertaining to individual and unit training that describes how evaluations were conducted, what happened and recommendations for change. The results of collective training are normally reported in after action reports. Individual training results are reported

to higher headquarters and may include what tasks individuals failed to train to standards. Selected items of individual training are reported electronically and used in the Manpower Management System.

Individual Evaluation Data: Data with training and education application collected as a result of testing, observation surveys, etc. concerning individuals to determine worth, merit or value of a training/education program.

Individual Training Standards System: A document that provides guidelines relating to tasks that individual Marines should be able to do within a given grade for a particular MOS or a particular billet requirement. The ITSS provides common training standards (tasks, conditions, standards) for all Marines within a given occupational field, specific training standards for all Marines in a given MOS by grade, an optimal list of training references, training support ammunition requirements and correspondence courses to support the training standards, and a way to evaluate the training.

Individuals: All personnel requiring training or education at any level. Includes: Inductees, Recruits, Officer Candidates, Civilians, other Service Personnel, Foreign Service Personnel and Trained Personnel requiring follow-on training/re-training/other training/skill conversion training.

Individuals w/AC MOS: All of the officer and enlisted Marines with Aviation Military Occupational Specialties in support of the Air Combat Element of a MAGTF.

Individuals w/CS & CSS MOS: All of the officer and enlisted Marines with Combat Support and Combat Service Support Military Occupational Specialties in support of the Combat Service Support Element of a MAGTF.

Individuals w/GC MOS: All of the officer and enlisted Marines with Ground Military Occupational Specialties in support of the Ground Combat Element of a MAGTF.

Individuals w/other MOS: All of the officer and enlisted Marines in a MAGTF with military occupational specialties that are not included in the definitions for individuals with AC, CS & CSS or GC MOSs.

Inst/Stu Situation: Instructor/Student Situation. Situations caused by influences external to the classroom or field that impact training and require resolution. These include personal problems, tempo of operations, skill/leader shortages, equal opportunity, discipline, billeting, etc.

Instruction Evaluation Data: Information obtained after an instructional program is developed that provides judgements about a program's value, worth or merit and leads to decisions concerning program continuation, extension or termination.

Instructional T&E Materials: All materials produced by the T&E process to conduct training and education (i.e. curricula, plans, Job Aids, instructor/student guides, training schedules, etc.).

Instructional Setting: The location and physical characteristics of the area in which instruction takes place.

Integrated Capability Assessment: That phase of the Concept Based Requirements System that results in combat related requirements that dictate training and education solutions that are reached after considering the impact on doctrine, organization, equipment, facilities and support

Integrated T&E Issues: T&E Issues that have been coordinated/staffed with appropriate individuals/organizations.

Intervention Alternatives: A set of potential "solutions" or plans to correct a "real" training and education need. They may consist of the purchase of new equipment, of providing additional training, of altering the present methods of training or any other viable means of correcting the deficiency.

IS Documents: Information Systems documentation to include Functional Descriptions, Operating Manuals, Specifications, Maintenance Manuals, Implementation Plans, etc.

ITS: Individual Training Standard. Criteria for job performance used to determine who can and cannot perform satisfactorily. They constitute the basis for design, development, implementation and evaluation of all individual training conducted in units and institutions. They are designed to be used by the commander to determine proficiency, evaluate individual training, and maintain quality control.

Job Performance Aids: Step-by-step action oriented procedures containing all the information needed for satisfactory completion of specific job tasks or job steps.

Job Task Inventory: A task list compiled using behavioral defined action statements, each of which describes a single task performed by a billet incumbent in the survey area under study.

Joint/Service/Int./Civilian Schools: School at which Marines and civil servants working with the Marine Corps are trained.

JTX: Joint Training Exercise. Training involving two or more services of the U.S. Armed Forces.

JUMPS/MMS: Joint Uniform Military Pay System/Military Manpower System. Automated pay and manpower system.

Learning Objectives: A statement of the behavior or performance expected of a student as a result of a learning experience, expressed in terms of the behavior, the conditions under which it is to be exhibited, and the standards to which it will be performed.

Lessons Learned: Procedures developed to "work around" deficiencies in doctrine, organization, training and education, and equipment.

LFX: Live Fire Exercise.

MA 60 Assessment: Mission Area 60 (Training Equipment) Assessment

MAGTF Mission: Marine Air Ground Task Force task, together with the purpose, that clearly indicates the action to be taken and the reason for taking it.

Maintained Records: Training and education-related records maintained on individuals and units.

MAMS: Military Airspace Manage System. MAMs is a networked computer database system used to schedule and manage airspace.

Manpower Issues: Training manpower issues developed during the planning process that must be resolved outside the T&E resource development process. Resolution may or may not involve the infusion or re-allocation of manpower.

Manpower Requirements: Manpower resources needed to support approved T&E programs.

MAPEX: Map Exercise. MAPEXs are low-cost, low-overhead training exercises that portray military situations on maps and overlays that may be supplement with or replaced by, terrain models and sand tables.

Marine Dev/Mod Sit: Developed or modified T&E support situations to include manpower, equipment and facilities needs.

Marine Officers/WO: Marine Officers and Warrant Officers duly sworn to support and defend the constitution of the United States, who have completed a formal commissioning program. A Warrant Officer is a former enlisted Marine who has been commissioned and serves in a restricted MOS.

MATMEP: Maintenance Training Management and Evaluation Program. A standardized, documentable, level progression, technical skills training management and evaluation program in Occfields 59, 60, 61, 63, 64, 65 and 70.

MBST/EST STDS: Marine Battle Skills Training Standards/Essential Skills Standards.

MCAIMS: Marine Corps Automated Information Management System. The Marine Corps standard system for school administration and instructional management.

MCCRES: Marine Corps Combat Readiness Evaluation System. A system designed to provide FMF commanders with a comprehensive set of mission performance standards from which training programs can be developed, and through which the efficiency and effectiveness of training can be evaluated.

MCCRESA: MCCRES software designed to provide an efficient training management tool for accurately assessing the units ability to perform the tasks contained in its mission essential task list.

MCCRES Data: Standardized input and feedback from all MCCRES exercises.

MCCRES Unit: A unit that has received a MCCRES evaluation.

MCLLS: Marine Corps Lessons Learned System. Provides capability to collect, process and disseminate lessons learned and related information from after-action reports. A responsive method for initiating action to correct deficiencies or shortfalls noted through the analysis of after-action reports in the areas of doctrine, organization, training and education, and equipment.

MCMP: Marine Corps Master Plan. The MCMP is a Total Force Plan that provides the foundation for mid-range combat development and for supporting establishment planning. It defines objectives and required capabilities to support the National Military Strategy (NMS) and meet global commitments. Support to other Services, Department of Defense, other U.S. government agencies, and U.S. allies appear where appropriate. The MCMP reflects the linkage between the Fleet Marine Forces (FMF) and the Supporting Establishment's effort to provide essential training and facilities, improve quality of life, and facilitate mobilization. It provides resource allocation guidance and direction to the Planning, Programming, and Budgeting System by articulating the Marine Corps' capabilities to be attained in doctrine organization, training and education, equipment, and facilities and support. The MCMP contains a section on training and education that includes mid-term training and education objectives. Also included are training and education implementing actions within each of the Marine Corps' twenty missions areas needed to achieve capabilities during the mid-range period. The Marine Corps' mid-term combat development capabilities are also prioritized in the MCMP.

MCSAM: Marine Corps Sorts Analysis Module. It is an automated tool used to revise, correlate and analyze SORTS data.

MCWAR/TLS: Marine Corps War College/Top Level School. A formal PME School designed to educate senior field grade officers in the nature of, preparation for and conduct of war. MCWAR prepares officers to assume senior positions of increasingly complex responsibility associated with the application of Maritime expeditionary warfare, MAGTF operation, joint and combined warfare concepts, national military strategy, the elements of national power and national strategy. Also referred to as Senior Level School.

MECEP: The Marine Corps Enlisted Commissioning and Education Program. A Marine Corps enlisted commissioning program that offers candidates a college degree and commission as a second lieutenant.

Media: A specific technique or means of expression as determined by the creative methods employed.

METL: Mission Essential Task List. Tasks that are essential to accomplishing the organization's combat mission.

MILCON Assessment: A determination of the ability to fully execute current and proposed military construction support to training and education based on expenditures/obligations during the current fiscal year to date.

MILCON Requirements: Military construction (facility) resources needed to support approved T&E programs.

MILCON Issues: Training facility construction issues developed during the planning process that must be resolved outside the T&E resource development process. Resolution may or may not involve the infusion or re-allocation of resources.

Mission Benefit: To assist in evaluating commanders' perception of mandated programs, all functional areas designated as legally or militarily mandated, under all categories of support, are assigned mission benefit ratings on a scale of 1 to 9. A "1" indicates no perceived benefit to achieving the mission with "9" indicating very strong mission benefit.

Model Manager: Personnel or units who test, evaluate and validate unit training management, policies and programs.

Modified Inst./Stu. Situation: An instructor/student situation involving matters external to the classroom or field training that has been changed.

MOJT: Managed On-the-job Training. MOJT is training conducted in the unit environment which utilizes a combination of formal classroom instruction and practical application where the primary instructor is also the unit leader of the trainee. Evaluation of the trainee is based upon the capability to demonstrate specific training standards.

MPS: Mission Performance Standards. A measure of collective performance. As a minimum, collective training standards consist of a task, the condition under which the task is to be performed, and the evaluation criteria which will be used to verify that the task has been performed to a satisfactory level.

MSTP: MAGTF Staff Training Program. MSTP facilitates senior-level staff training; MEF, Component and MSCs. It serves as the MCCDC link to the FMF for the combat development process; provides instruction for MEF-level operations at MCU schools; and assists the FMF in CINC-level wargames.

MTT: Mobile Training Team. A team of instructor personnel with a self-training capability in a particular skill.

NATOPS: Naval Air Training and Operating Procedures Standardization Program. NATOPS standardized ground and flight procedures, but does not include tactical doctrine. It is a positive approach toward improving combat readiness and achieving a substantial reduction in the aircraft accident rate.

NAVFLIRS: Naval Flight Record Subsystem. NAVFLIRS is an automated data base which contains all data elements required to manage Navy/Marine Corps aviation assets. It can record specific training tasks.

NITRAS: Navy Integrated Training Resource and Administrative System. NITRAS is an automated training management system that contains records of Marines training in Navy schools.

Non T&E Needs: Deficiencies that can be corrected by methods other than by education or training. A perceived T&E need may not require development of new skills or application of additional T&E resources. The need may be solved by changes in non-T&E policies and procedures or other factors outside the T&E process.

NROTC: Naval Reserve Officers Training Corps. A commissioning program for Navy and Marine Corps Officers conducted at selected universities and colleges.

NTSC: Naval Training Support Center.

O&M Assessment: A determination of the ability to fully execute (expend) operations and maintenance funds for T&E programs based on actual expenditures/obligations during the current fiscal year to date.

O&M Issues: Training operations and maintenance issues developed during the planning process that must be resolved outside the T&E resource development process. Resolution may or may not involve the infusion or re-allocation of resources.

O&M Requirements: Operations and Maintenance resources needed to support approved T&E programs.

Observation Data: Data collected as a result of observing individual performance.

Observed Individual: Person who is performing a task.

OCC Field FEA: Occupational Field Front End Analysis. OCC Field FEA is made up of two elements; occupational analysis and training analysis. Occupation analysis determines what jobs are actually being performed in the Marine Corps and then compares those jobs to previously published MOS descriptions, occupational field structures and training standards. It compares what is actually being done in the field to doctrine to provide effective allocation of resources. Training analysis determines which of the tasks identified during the occupational analysis should be learned. This determination is made after a review of doctrine and resources available for training.

OCCField Sponsor Requirements: OCCFIELD sponsor input to the Training Input Plan.

Other Service Requirements: Other Services' input to the Training input Plan.

Other MOS ITS: Individual training standards developed for military occupational specialties other than those in the air, ground, combat support and combat service support areas.

Other MPS: Mission performance standards developed for other than air, ground, combat support and combat service support units.

Other than PRI MOS Rqmts: Non-primary MOS input to the Training Input Plan.

PC/Lotus: Personal Computer w/Lotus spreadsheet application.

PLC: Platoon Leaders Class. A Marine Corps Commissioning Program designed to evaluate and screen officer candidates and to introduce them to military life which is offered to college students and conducted during summer breaks from college.

POI/CDD: Program of Instruction/Course Descriptive Data. POI is a training management document that describes a formal course in terms of structure, delivery systems, length, intended learning outcomes and evaluation procedures. CDD provide the justification and documentation for development or refinement of formal programs of instruction taught at Marine Corps Training and Education institutions.

Preliminary TIP: Draft Training Input Plan that is staffed for concurrence or recommended modification.

Previous POM Data: Data from the previous POM which will show which T&E programs were approved for implementation and submitted for budget preparation.

Prioritized Requirement: A discrepancy between desired and actual mission/duty performance due to lack of, ineffective or inadequate training or education that has been evaluated and weighted against other discrepancies.

Prioritized T&E Programs: A selected intervention to a discrepancy between desired and actual mission/duty performance due to lack of, ineffective or inadequate training or education that has been evaluated and weighted against other T&E programs.

Reports: All documents with training and education application concerning the current or future status of Marine Corps Training and Education (i.e. MMTR, T&E POM Inputs, T&E input to manpower planning and acquisition, etc.).

Required Tasks: Tasks required to accomplish jobs and missions.

Requirements & Guidance: Any requirement or guidance with training and education application developed outside the training and education process (i.e. missions, capability objectives, Marine Corps Master Plan, U.S. Code, DoD Directives, etc.).

Reserve PRI MOS Requirements: MARRESFOR input to the Training Input Plan.

RFMSS: Range Facility Management Support System. RFMSS is a networked computer database system that assists in the scheduling and management of ground ranges and airspace.

SABRS: Standard Accounting, Budget, and Reporting System. The Marine Corps' accounting system. Produces budget execution reports.

SAMS: SORTS Analysis Module. The Marine Corps SORTS Analysis Module is an automated tool used to revise, correlate and analyze SORTS data.

SAT Guide: Systems Approach to Training Guide. The SAT Guide serves as a primary source of information guidelines regarding instructional program development and management for Marine Corps formal Schools, training centers and formal courses of instruction collocated at other military service schools.

Schedules: A reference sheet that details the structure of a course, breaking it down by instructional hour and instructional day. It may include instructional days, scheduled breaks, administrative hours, required equipment and instructors.

School House Changes: School House input to the TIP which include physical and fiscal constraints.

Selected Intervention: The most viable intervention based on available resources and costs vs. expected benefit.

Self-Study: PME accomplished by Marines outside the formal classroom environment to broaden their professional foundation in warfighting. It includes the professional reading program, formal school prerequisite courses, nonresident programs and other self-study.

Seminar/Symposia: Professional Military Education Forums relevant to the profession of arms.

SEMP: Supporting Establishment Master Plan. The SEMP is the non-FMF complement of the Marine Corps Master Plan (MCMP). It is developed concurrently with the MCMP and defines the process by which Supporting Establishment programs and initiatives are identified and prioritized to support the Total Force. This process tailors Marine Corps capabilities to the specific needs of supported forces, Marines and their dependents. With operation force participation, force requirements are identified and prioritized by installation and region. In the SEMP, Supporting Establishment goals and objectives are listed by functional area. Training and education is one of the functional areas.

Sequenced Learning Objectives: Learning objectives sequenced in the order in which they are to be taught.

SGTs Course & Staff NCO Academies: A PME course designed to enhance the experience, skill, knowledge, judgement and confidence of NCOs in the grade of sergeant. It presents the functional concepts of leadership and stresses the responsibilities of a Marine leader in combat and combat preparation. The mission of the Staff NCO Academy is to provide noncommissioned officers and staff noncommissioned officers with the requisite education and leadership training to enhance their professional qualifications in preparation for the assumption of duties of greater responsibility.

Simulation: Tasks performed using training devices that imitate actual equipment.

SME Experience Data: Information received from functional experts.

SMEs: Subject Matter Experts. Individuals who are recognized by Training and Education Managers as having sufficient education and/or experience in a particular area and are empowered to influence the training and education process.

SORTS: Status of Resources and Training System. SORTS is an internal management tool for use by the Chairman of the Joint Chiefs of Staff, services and combatant commands. It is the single, automated reporting system within the Department of Defense that functions as the central registry of all operational units of the U.S Armed Forces and certain foreign organizations. For specified registered units, SORTS indicates, at a selected point in time, the level of selected resources and training status required to undertake the mission(s) for which the unit was organized or designed.

SOTG: Special Operations Training Group. The SOTG is located within MARFORLANT and MARFORPAC. They conduct training for/certify Special Operations Capable Marine Expeditionary Units.

Standards: Marine Corps training standards: Mission Performance Standards, Individual Training Standards, syllabus sorti, and training essential tasks. Individual Training and Mission Performance Standards are a measure of collective or individual performance. As a minimum, both collective and individual training standards consist of a task, the condition under which the task is to be performed and the evaluation criteria which will be used to verify that the task has been performed to a satisfactory level.

Studies: Analysis and studies that have been undertaken by the Marine Corps or are directly related to the Marine Corps that provide information on the status, quality, efficiency and effectiveness of Marine Corps Training and Education programs. Examples are Mission Area Analyses (MAAs), GAO reports, IG reports, etc. Mission Area Analyses are a series of analyses in twenty mission areas to identify functions, tasks, measures of effectiveness; determine Marine Corps capability objectives; determine deficiencies in material support, doctrine, force structure and training; and identify opportunities to enhance Marine Corps capabilities.

STX: Staff Training Exercise. An STX allows commanders and their staffs to fight battles in diverse command post configurations under realistic combat conditions as smoothly functioning teams.

Support Category: One of four categories to define the level of support which O&M funds are providing. Categories I and II are "essential" and without support the MC will be unable to meet even the most fundamental requirements of the FMF and supporting establishment. Categories III and IV are "auxiliary" and provide either sustaining or enhancing capabilities to the first two categories.

T&E Budget: A plan for expending resources to support training and education programs.

T&E Budget Requirements: Execution year resources needed to support approved T&E programs.

T&E Committee: A group of individuals from the Training and Education Division, MCCDC who prioritize training and education program requirements and otherwise participate in the POM process.

T&E Concepts: General training and education notions, thoughts or understanding derived from specific instances or occurrences.

T&E Data: Technical information or any other information with education and training application developed outside Marine Corps training and education processes (i.e. civilian educational studies concerning new teaching method).

T&E Deficiencies: Performance discrepancies that indicate a need for a training/education solution.

T&E Issues: Any item with training and education application that requires approval or further staffing/analysis/evaluation.

T&E Program Managers: Individuals empowered and responsible for implementing training and education programs.

T&E Manpower Assessment: A determination of the ability to fully execute current and proposed military construction support to training and education based on expenditures/obligations during the current fiscal year to date.

T&E Materials: All materials produced by the T&E process to manage, conduct or evaluate training and education (i.e. instructional materials, curricula, plans, Job Performance Aids, Instructions, Orders, Directives, etc.)

T&E Needs: A deficiency that can be corrected by training or education usually documented in a Training and Education Needs Statement (T&ENS).

T&ENS: Training and Education Needs Statement. A T&ENS is a concise statement of a training or education deficiency that includes potential cause(s), potential solutions(s) and impact on nontraining areas. It describes in detail a discrepancy that exists between desired and actual mission/duty performance due to lack of, ineffective or inadequate training or education.

T&E Policy/Guidance/Goals & Objectives: Governing principles issued or developed by Commanders or T&E Managers that influence the management, conduct or evaluation of training and education.

T&E POM Data: Information concerning resources planned for training and education programs across all appropriation accounts for the planning period (FYDP).

T&E Schedule: A document which specifies subject to be taught, the number of hours to be devoted to each subject, and an outline of the general sequence of instruction. It should include: personnel to be taught; subjects to be taught; instructors for each subject; references; date, time and place of instruction; uniform and equipment; and administrative instructions.

T&E Support Requirements: Training Support and/or Training Facilities required to enable training and education.

T&R Manual: Aviation Training and Readiness Manual. The manual prescribes the number of flights/events, the tasks to be accomplished on each flight/event, and the refly factor for skill retention. The purpose of the manual is to standardize the aircrew and MACCS Personnel Training Syllabi of the Marine Corps and to specify performance requirements for flight and non-flight qualifications.

T/E: Table of Equipment: A list of the equipment authorized for a unit or organization.

T/O: Table of Organization. The personnel structure (total requirement) for a unit or organization.

Target Population: A general description of the target population. Establishes administrative, physical and academic prerequisites that students should possess to be assigned to a formal school of instruction.

Taskmaster: A PC application that formats Individual Training Standards.

TBS: The Basic School. A primary-level course attended by all second lieutenants and newly-commissioned warrant officers after commissioning. The course is designed to lay the foundation of officerhood prior to initial MOS training and assignment to the FMF.

TEEP: Training Employment and Exercise Plan. A long-range planning schedule, normally eighteen months, that is continually updated and projects training events and other events that impact training. The TEEP is distributed to subordinate echelons along with sufficient guidance to allow preparation of mid-range plans.

Test Data: Student performance results, either from written tests or performance tests, that must be analyzed and interpreted to determine if students mastered the learning objectives required for successful performance on the job.

Test Item: Methods for measuring student performance.

Tested Individuals: Individuals who have been given either written or performance tests.

TEWT: Tactical Exercise Without Troops. TEWTs are low-cost, low-overhead exercises conducted in the field on actual terrain suitable for training units for specific missions. Using few support troops, TEWTs are used by commanders to train subordinate leaders and battle staffs.

TIP: Training Input Plan is the formal school planning document. The TIP identifies the number of Marines, by student type and MOS, to be trained under HQMC control. Major considerations are occupational field sponsor requirements, primary MOS requirements, other than primary MOS requirements, and other Service requirements.

TIP Data Call: The Training Input Plan Data Call solicits input to the TIP.

TOA: Total Obligational Authority. The sum of all direct budget authority granted (or requested) from the Congress in a given year, amounts authorized to be credited to a specific fund, and unobligated balances of budget authority from previous years which remain available for obligation.

TQM: Training Quota Memorandum. The Training Quota Memorandum is the formal school scheduling and funding document. It is an execution order that schedules and assigns quotas for each course of instruction. The TQM is an input to the By Name Assignment (BNA) system which assigns individual Marines to specific courses of instruction.

Trained Units: Any unit that has received training.

Training Equipment Requirements: A deficiency that exists between desired and actual mission/duty performance due to lack of, ineffective or inadequate training equipment.

Training Facilities: Buildings, classrooms, ranges, fields, etc.

Training Plans: A training document that outlines the general plan for the conduct of individual and collective training in an organization for specified periods of time.

Training Status: A point in time of the training life cycle of a unit or individual.

Training Support: All non-facility resources to support the management, conduct and evaluation of training and education (i.e. training personnel, support personnel, equipment, consumables, devices, simulators,etc.)

TRRMS: Training Requirements and Resource Management System. TRRMS supports data requirements in five areas. First, provides for the collection, compilation and dissemination of training

requirements. Second, provides for the development and dissemination of Training Quota Memorandum. Third, provides management information to action officers, e.g. to monitor the effectiveness of training execution. Fourth, identifies the costs of training. Finally, provides budget formulation and execution data for T&E Division training budgets. TRRMS interfaces with ATTARS (Army), BNA, NITRAS (Navy) and TM (USAF). Excessive time awaiting training can be identified through the information provided by TRRMS. The system will maintain historical training statistics to provide correcting feedback.

TSA: Training Situation Analysis. TSA compares the organization's current level of training proficiency with the desired level of combat proficiency using individual and mission performance standards as measures of performance.

Unit Evaluation Data: The sum of training and education data gathered on individual and collective proficiency within a unit to determine worth, merit or value of a training/education program.

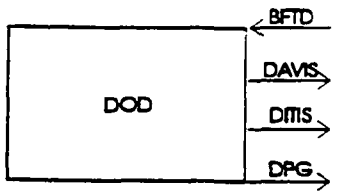
Units: Any unit(s) requiring training or education at any level. Includes Teams, Crews, Squads, Platoon, Units, Groups, Squadrons, Companies, Battalions, etc.

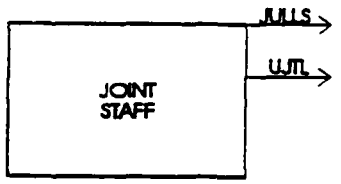
Unit Training Situations: The sum of missions, priorities, evaluations and external influences that affect training as described in the five phases of the systems approach to training (analyze, design, develop, implement, evaluate).

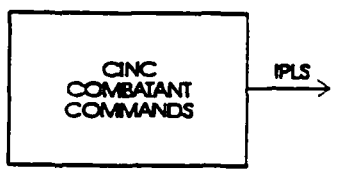
USNA: United States Naval Academy. An evaluation and screening course that may result in a college degree and commissioning as a second lieutenant in the Marine Corps.

Value Added Capability: The added contribution of new training equipment to a particular capability set within the MA 60 mission area.

Appendix E



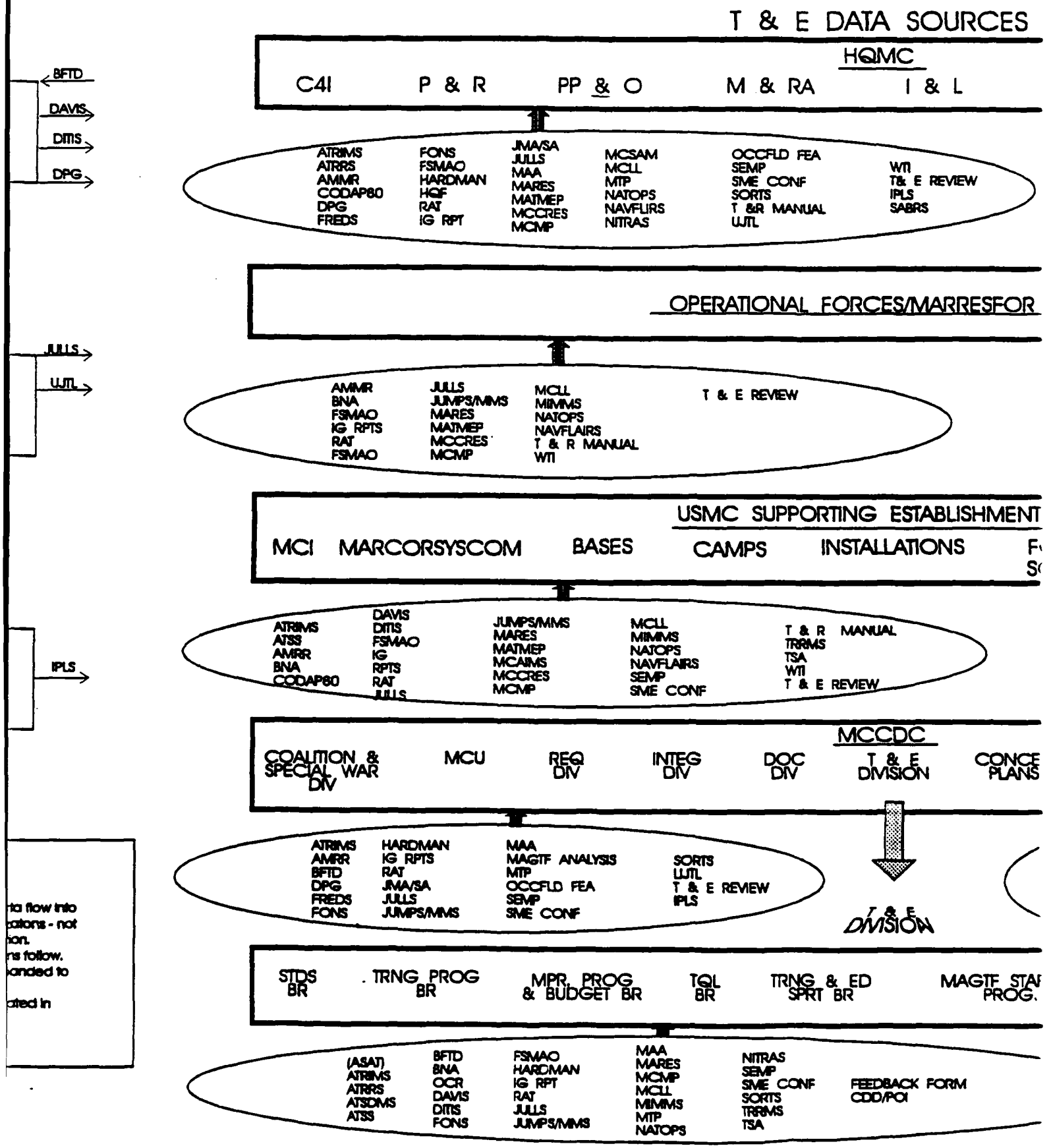




NOTES:
1. Arrows indicate data flow into composite organizations - not individual sub-section.
2. Systems descriptions follow.
3. T & E division is expanded to show detail.
4. New systems indicated in parens.

Appendix E

MARINE CORPS TRAINING READINESS SU (MCTRSS)



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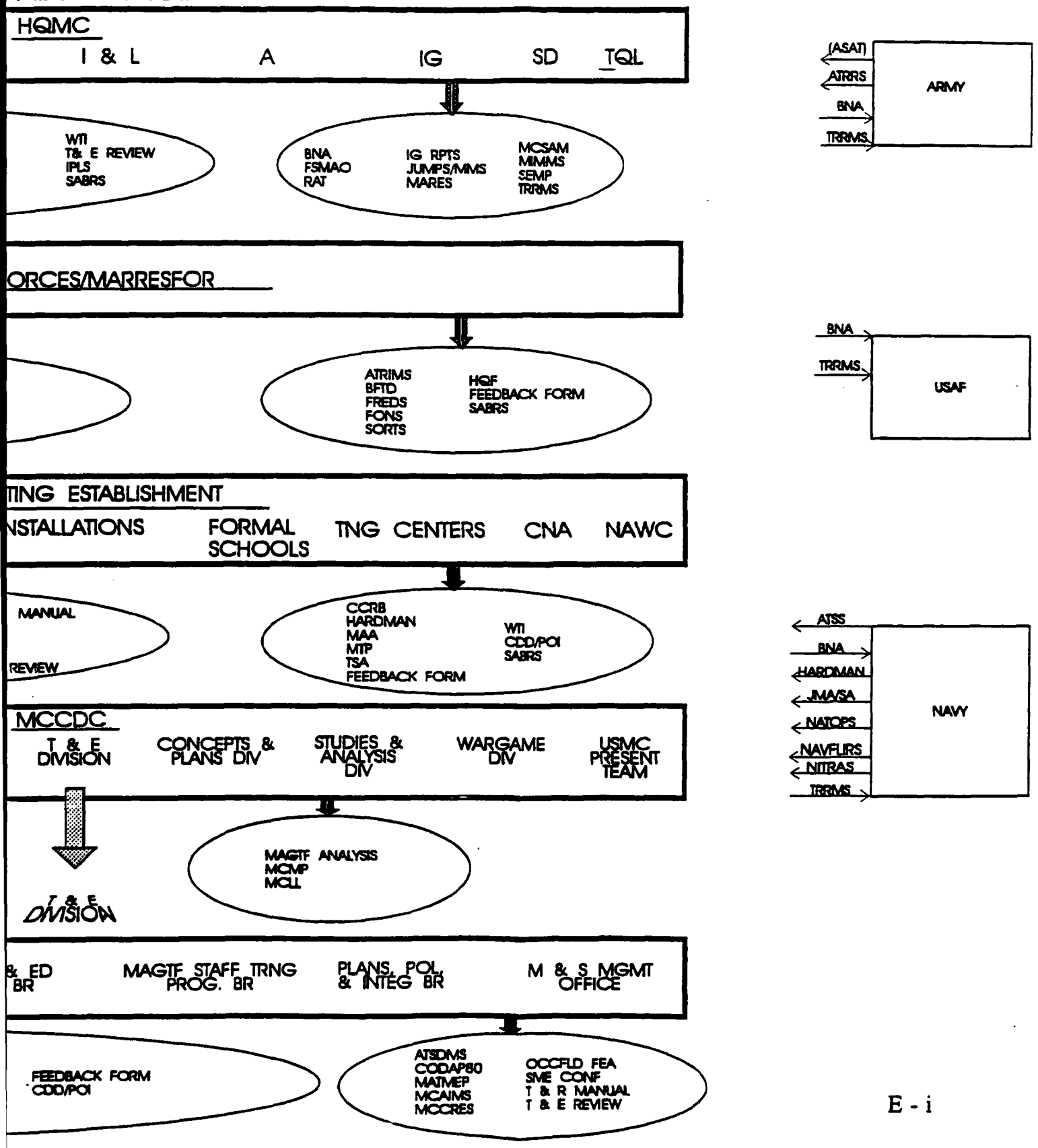
DATA SOURCES



APPENDIX E

POTENTIAL T&E DATA SOURCES

The information contained in this Appendix was obtained from various sources including Marine Corps orders that need to be updated. In order to insure that the information contained herein is current, during Phase II of the Project Functional Managers of the various systems will be contacted and requested to validate the information. During Phase II, the "AS-IS" activity models in Section 3 will be updated to include data sources from this section that were not identified by SMEs during interviews and model reviews. Some data sources were not included because they are not consistently applied by different organizations performing similar activities.

MIS: AMRR
MIS TITLE: AIRCRAFT MAINTENANCE READINESS REPORT

Description: This system tracks mission capability status of aircraft. Group level units transmit data in Lotus 1-2-3 format via modem to the AMO for aggregation.
System User: All Aviation Units
Functional Manager: FMF

MIS: ASAT
MIS TITLE: AUTOMATED SYSTEMS APPROACH TO TRAINING

Description: ASAT is an Army system. Initial fielding will be in the First Quarter of 1994. The Collective Training Production Module provides analytical tools to assist in the collective training production process. The tools include an organizational chart maker and the production of a mission/echelon relationship matrix. ASAT provides a generic export capability to the Standard Army Training System (SATS) and can be used in the development of unit mission essential task lists (METLs). This capability results in a link between unit mission and collective tasks and a link between collective and individual tasks.
System User: Army units
Functional Manager: TRADOC

MIS: ATRIMS:
MIS TITLE: AVIATION TRAINING AND READINESS INFORMATION MANAGEMENT SYSTEM.

Description: ATRIMS is a special purpose training management tool that automates the management of the T&R syllabi. ATRIMS is based on the aircrew training syllabi contained in the Aviation Training Readiness Manual. It can be used to analyze aircrew syllabi effectiveness, to evaluate aircrew performance and to project the most efficient use of training flight hours at the lowest command levels. Input is primarily through NAVFLIRS daily transaction log. ATRIMS facilitates historical aircrew record

keeping , Combat Readiness Percentage (CRP) tabulation, currency, and summary/forecasting reports useful to aircrew training management.
System User: FMF (all squadrons-aviation and ground control)
Functional Manager: MCCDC

MIS: ATRRS:
MIS TITLE: AUTOMATED TRAINING REQUIREMENTS AND RESOURCES SYSTEM.

Description: ATRRS is an automated system that contains information on Marines trained in Army schools.
System User: MCCDC (T&E Division)
Functional Manager: ARMY

MIS: ATSDMS
MIS TITLE: AUTOMATED TRAINING STANDARDS DEVELOPMENT AND MAINTENANCE SYSTEM

Description: Supports the development and maintenance of Individual Training Standards (ITSs), Mission Performance Standards (MPSs), the Maintenance Training Management and Evaluation Program (MATMEP), and the Military Occupational Specialties Manual (MOSMAN). The system provides for ease in editing and publishing applicable Marine Corps Orders. The associated FOCUS database provides a training analysis capability.
System User: MCCDC (T&E Division)
Functional Manager: MCCDC (T&E Division)

MIS: ATSS:
MIS TITLE: AVIATION TRAINING SUPPORT SYSTEM.

Description: ATSS is a Navy system that enables aviation training program managers to author, edit, review and update training materials on-line, to monitor the scheduling of aviation-related training resources, and to merge training resource and production data to produce significant measures of training performance. ATSS supports all aviation training tracks/schools. It interfaces with NITRAS and incorporates the MTIP database for testing and school feedback.
System User: MCCDC
Functional Manager: Navy

MIS: BFTD
MIS TITLE: BATTALION FIELD TRAINING DAYS

Description: BFTD is defined as a day of training by ground units in furtherance of a unit's mission training program within the following guidelines:

The training is conducted in the field away from garrison or debarked from amphibious shipping.
The training is between 8 and 24 hours in duration.
In cases involving more than 1 day of training, the subsequent days begin at 0600. One-half of a BFTD can be credited for 4 to 8 hours of training.

A BFTD requires the training of a majority of a unit's strength. Since many units may not normally conduct training at the battalion level, BFTDs are computed based on equivalents relative to the subordinate unit's size.
System User: MCCDC (T&E Division), Marine Corps ground units
Functional Manager: MCCDC (T&E Division)

MIS: BNA
MIS TITLE: BY NAME ASSIGNMENT.

Description: BNA is a training management system that uses existing computerized information to better manage the flow of personnel through formal training pipelines. Commands using BNA will be able to identify school classes and seat availability. BNA will also support the OSD unit cost of training initiatives.
System User: MM, MP, T&E, Career Planners, Formal Schools, LANT/PAC/RES HDQTRS, Admin Dets. and I&L.
Functional Manager: CMC (M&RA)

MIS: CCRB (RECORD OF PROCEEDINGS)
MIS TITLE: COURSE CONTENT REVIEW BOARD (RECORD OF PROCEEDINGS)

Description: Formal schools and training centers conduct evaluation of courses on an ongoing basis. Results are reported through CCRB Record of Proceedings and provided to T&E Division, MCCDC for review and appropriate action. Record of Proceedings include but are not limited to:

Formal review of internal/external evaluation data.
Formal review of higher headquarters policy change or direction which impacts on a course of instruction.
Recommended lesson modifications
Lesson additions/deletions
Formal review of appropriate doctrinal publications, training standards and/or task lists.

System User: Formal schools, training centers, MCCDC
Functional Manager: MCCDC (T&E Division)

MIS: CDD/POI
MIS TITLE: COURSE DESCRIPTIVE DATA/PROGRAM OF INSTRUCTION

Description: Commanding General Marine Corps Schools reviews and approves CCDs/POIs for all new and revised formal courses of instruction submitted by Marine Corps training and education institutions to ensure compliance with Marine Corps standards. CDDs and POIs (or equivalent document) for each course attended by Marine Corps personnel in FMF unit schools and other military service schools are also reviewed to determine whether Marine Corps training standards/educational objectives are being met.

Course Descriptive Data provide the justification and documentation for development or refinement of formal programs of instruction taught at Marine Corps training and education institutions.
The Program of Instruction is a document which describes a formal course of instruction in terms of structure, delivery methods, media, length, intended learning outcomes and evaluation

procedures. Every formal course of instruction must have a POI approved by the Commanding General Marine Corps School.
System User: MCCDC, Marine Corps Formal Schools and Training Institutions, other Services schools.
Functional Manager: MCCDC (T & E Division)

MIS: CODAP80
MIS TITLE: COMPREHENSIVE OCCUPATIONAL DATA ANALYSIS PROGRAM

Description: CODAP is a computer-based system that manipulates and reports survey data gathered from job incumbents and expert raters. The purpose is to identify and analyze current job structures and task characteristics within an occupational area. Resulting output from this system may be used to revise classification structures, assess job-related skills, verify the relevance of training courses,and support a host of other applications in which an accurate knowledge of job content at the task level is essential.
System User: MCCDC (T&E Division)
Functional Manager: MCCDC (T&E Division)

MIS: DAVIS
MIS TITLE: DEFENSE AUTOMATED VISUAL INFORMATION SYSTEM

Description: DAVIS is a standard DoD-wide automated data processing system for managing visual information (VI) at the DoD component and major command levels. DAVIS includes a production database covering production, acquisition, inventory, distribution, product status and archival control of audiovisual productions and VI materials, and a VI facilities database that includes activities, facilities, personnel and funds.
System User: DoD
Functional Manager: DoD

MIS: DITIS
MIS TITLE: DEFENSE INSTRUCTIONAL TECHNOLOGY INFORMATION SYSTEM

Description: DITIS is a standard, DoD-wide database designed to facilitate ICW information. The DITIS database provides information on all DoD-owned ICW programs, whether fielded or under development, including information on delivery systems, operating software, authoring tools, and courseware for both planned and fielded ICW systems. Interaction with DITIS is required at the development, proposed development, development or acquisition completed, program revision and program termination stages.
System User: DoD
Functional Manager: ASD (P&R)

MIS: DPG
MIS TITLE: DEFENSE PLANNING GUIDANCE

Description: The DPG generally is considered to be the link between planning and programming. It gives the official planning guidance to the military departments for developing their Program Objective Memorandums (POMs). In OSD, the Under Secretary of Defense for Policy USD(P) takes the lead in drafting the DPG. As drafts of the DPG are produced, they are circulated to the military departments and others for review and comment. At that time, the Services use the draft DPG as guidance to begin

development of their programs. The draft DPG is reviewed by the Joint Chiefs of Staff and the CINCs and by the Defense Planning and Resources Board until the final DPG is issued.
System User: All DoD
Functional Manager: USD (P)

MIS: FREDS
MIS TITLE: FLIGHT READINESS EVALUATION DATA SYSTEM

Description: Contains daily flight transaction report and monthly aircraft utilization report information.
System User: Aviation units
Functional Manager: CMC (A)

MIS: FONS:
MIS TITLE: FLEET OPERATIONAL NEED STATEMENTS.

Description: FONS are direct inputs from the FMF which normally address equipment shortfalls. They create requirements not otherwise identified in MCLLS, MAA or the MCMP. FONS can be generated at any level, but must go through the chain of command to MARFORLANT/PAC for submission to MCCDC.
Systems User: MCCDC and all MARFORLANT/PAC units
Functional Manager: MCCDC

MIS: FSMAO EVALUATIONS
MIS TITLE: FIELD SUPPLY MAINTENANCE ANALYSIS OFFICE EVALUATIONS.

Description: FSMAO identifies and assists in the resolution of discrepancies/problems by recommending corrective action such as incorporation of training, clarification of misinterpretations and providing guidance.
System User: All Marine Corps units and CMC
Functional Manager: CMC (I&L)

MIS: HARDMAN (TRAINING RELATED REPORTS)
MIS TITLE: HARDWARE/MANPOWER

Description: HARDMAN is a front-end analysis composed of a set of documented procedures used to develop manpower, personnel, and training requirements throughout the acquisition process. There will never be a requirement for a HARDMAN analysis and a separate Manpower and Training Plan (MTP). The HARDMAN analysis includes a MTP. The Logistics Element Manager (LEM) must decide if a HARDMAN will be required for a given acquisition, or if a MTP will suffice. Training resource requirements are determined in step 4 of HARDMAN based upon analyses of a baseline comparison system. The annual training input requirements identified include courses to be conducted and the location, number of classes per year, class size and training support items for each identified course. Task analysis, performed on each identified operation and maintenance task identifies:

-Requirements for training and the type of training needed that are recorded on the D Record (MIL-STD-1388.2A) or CA Table (MIL-STD-1388.2B) and summarized on LSA-014, Training Task List.

-Requirements for training support that are recorded on the C Record (2A) or EA Table (2B) and are summarized on LSA-011, Requirements for Special Training Devices.

System User: MARCORSYSCOM, MCCDC, M&RA
Functional Manager: Navy

MIS: HQF
MIS TITLE: HEADQUARTERS MASTER FILE.

Description: The HQF is the Marine Corps' automated personnel data base which contains some training data on individual Marines.
System User: All Marine Corps units
Functional Manager: CMC (M&RA)

MIS: IGMC INSPECTION RESULTS/REPORTS
MIS TITLE: INSPECTOR GENERAL OF THE MARINE CORPS INSPECTION RESULTS/REPORTS

Description: Annual Inspection Report. This narrative report is submitted by major subordinate commands (MSCs) to CMC (IG) via the chain of command by October 15 annually. The report summarizes significant findings of inspections conducted by the command. Commands submit with their annual reports the results of Marine Corps Combat Readiness Evaluation System (MCCRES) evaluations conducted during the reporting period.

Readiness Assistance Team (RAT) visits. The purposes of RAT visits are to validate reported unit status, gauge preparedness to deploy/employ rapidly and to detect trends impacting readiness. Included in the functional areas assessed are training management and SORTS. Two or three units from each Marine Division per year are visited. These short, no notice visits result in written reports being provided to the unit visited and issues briefed at the appropriate command levels for corrective action.
System User: All Marine Corps
Functional Manager: CMC (IG)

MIS: JMA/SA ASSESSMENTS (NAVY)
MIS TITLE: JOINT MISSION AREA AND SUPPORT AREA ASSESSMENT

Description: The JMA/SA assessment process is the principal OPNAV program planning tool. Assessments define required operational capabilities related to warfare strategies (both existing and evolving strategies) and lay out program options to meet those required capabilities within constraints of fiscal reality. The goal is an integrated investment strategy which provides affordable and credible warfighting capabilities with full consideration of other Services' contributions to each Joint Mission Area. Joint Mission Areas include: Joint Strike, Joint Littoral, Joint Surveillance, Joint SEW/Intelligence, Strategic Deterrence, and Strategic Sealift/Protection. Joint Support Areas include: Readiness and Support, Manpower and Personnel, and Infrastructure.
System User: DON
Functional Manager DON

MIS: JULLS
MIS TITLE: JOINT UNIVERSAL LESSONS LEARNED SYSTEM

Description: JULLS is an automated data base of after-action reports and joint lessons learned from joint operations and exercises. JULLS lessons learned are distributed to DoD users worldwide. Every six months an interagency group chaired by the Vice Director, J7 reviews the JULLS data base and highlights significant interoperability problems on Remedial Action Projects (RAPs). RAPs provide visibility to important joint issues and provides a means of tracking them to resolution.
System User: DoD
Functional Manager: JOINT STAFF, J7

MIS: JUMPS/MMS
MIS TITLE: JOINT UNIFORM MILITARY PAY SYSTEM/MILITARY MANPOWER SYSTEM.

Description: Automated pay and manpower system which contains a basic training record for all Marines. The record contains elements of unit training, Service training, school/special skills training, and test scores.
System User: Marine Corps wide.
Functional Manager: CMC

MIS: MAAs (MARINE CORPS)
MIS TITLE: MISSION AREA ANALYSES

Description: A series of analyses in twenty mission areas to identify functions, tasks, measures of effectiveness; determine Marine Corps capability objectives; determine deficiencies in material support, doctrine, force structure and training; and identify opportunities to enhance Marine Corps capabilities. Implementing actions to correct training and education deficiencies are identified in each of the twenty MAAs. A training and education specific MAA (MAA-60) was completed by the CNA in June, 1993.
System User: MCCDC
Functional Manager: MCCDC

MIS: MAGTF ANALYSIS
MIS TITLE: MAGTF ANALYSIS, MODELING AND SIMULATION

Description: The system supports the Concept Based Requirements System (CBRS) by providing quantitative analyses of the tradeoffs in material, doctrine, force structure and training. The system is also used to explore and evaluate new concepts generated within MCCDC.
System User: MCCDC
Functional Manager: MCCDC

MIS: MARES
MIS TITLE: MARINE CORPS AUTOMATED INFORMATION MANAGEMENT SYSTEM

Description: MARES is an automated information system subset of the Marine Corps Integrated Maintenance Management System (MIMMS) which integrates supply and maintenance data to provide information concerning the ground equipment of active FMF and Selected Marine Corps Reserve (SMCR)

units. As a logistics capability information system, MARES receives, processes, and stores data which reflects the status of selected ground equipment authorized and possessed by FMF/SMCR reporting units. As far as SORTS reporting is concerned, MARES provides data in the determination of equipment/supplies on-hand "S" and equipment capability "R" ratings for induction into SORTS. MARES reports reflect the actual operational status of reportable combat essential equipment/mission-essential ground equipment possessed by each reporting unit.
System User: All MARFORLANT, MARFORPAC, MARRESFOR units; CMC (PP&O), (I&L)
Functional Manager: CMC (I&L)

MIS: MATMEP
MIS TITLE: MAINTENANCE TRAINING MANAGEMENT AND EVALUATION PROGRAM

Description: A standardized, documentable, level progression, technical skills, training management and evaluation program in Occfields 59, 60, 61, 63, 64, 65 and 70.

MATMEP is used in lieu of the Individual Training Standards System (ITSS) for the occupational fields identified above.
System User: Aviation maintenance units and MCCDC (T&E Division)
Functional Manager: MCCDC (T&E Division)

MIS: MCAIMS
MIS TITLE: MARINE CORPS AUTOMATED INFORMATION MANAGEMENT SYSTEM

Description: MCAIMS is a computer-based support system designed to assist formal schools and training centers through automation of administrative and management functions. It is the Marine Corps standard system for school administration and instructional management. The schools, training centers and MCCDC use MCAIMS to report crucial information to higher headquarters upon which funding and other management decisions are based. The major functions handled by MCAIMS are Personnel Administration, Resource Management, Course Development, Scheduling and Testing.
System User: Formal Schools, Training Centers and MCCDC
Functional Manager: MCCDC (T&E Division)

MIS: MCCRES
MIS TITLE: MARINE CORPS COMBAT READINESS EVALUATION SYSTEM

Description: MCCRES was developed to provide timely and accurate determination of the combat readiness of FMF units. The system was designed to provide FMF commanders with a comprehensive set of mission performance standards from which training programs can be developed, and through which the efficiency and effectiveness of training can be evaluated. MCCRES is composed of four interdependent yet distinct components:

Mission Performance Standards (MPSs). MPSs are mission-oriented, collective training standards that establish minimum acceptable operational performance criteria for Marine units and elements. MPSs are currently organized into a series of 12 volumes. As new missions are identified and/or new units established, new volumes will be added.

Mission Performance Evaluation System. The primary purpose of the MCCRES system is to provide training feedback. It is intended as a tool for evaluating the training readiness of a unit and to formulate future training requirements.

Reporting System. The MCCRES report is used by MCCDC to conduct trend analysis on manning, equipment and formal training, revise and update MPSs and provide CMC with a readiness assessment of all units.

MCCRES Software Program. The MCCRES software has been designed to provide an efficient training management tool for accurately assessing the unit's ability to perform the tasks contained within its mission essential task list. Identifiable trends are analyzed for future updates in equipment, manning, and formal training.

System User: MCCDC, HQMC, Marine units and elements.
Functional Manager: MCCDC (T&E Division)

MIS: MCMP
MIS TITLE: MARINE CORPS MASTER PLAN

Description: The MCMP is a Total Force Plan that provides the foundation for mid-range combat development and for supporting establishment planning. It defines objectives and required capabilities to support the National Military Strategy (NMS) and meet global commitments. Support to other Services, Department of Defense, other U.S. government agencies, and U.S. allies appear where appropriate. The MCMP reflects the linkage between the Fleet Marine Forces (FMF) and the Supporting Establishment's effort to provide essential training and facilities, improve quality of life, and facilitate mobilization. It provides resource allocation guidance and direction to the Planning, Programming, and Budgeting System by articulating the Marine Corps' capabilities to be attained in doctrine organization, training and education, equipment, and facilities and support.

The MCMP contains a section on training and education that includes mid-term training and education objectives. Also included are training and education implementing actions within each of the Marine Corps' twenty missions areas needed to achieve capabilities during the mid-range period. The Marine Corps' mid-term combat development capabilities are also prioritized in the MCMP.
System User: Marine Corps wide
Functional Manager: MCCDC

MIS: MCLLS
MIS TITLE: MARINE CORPS LESSONS LEARNED SYSTEM

Description: MCLLS provides the capability to collect, process, and disseminate lessons learned and related information from after action reports (AARs). AARs provide the official description of operations, exercises, and other reportable occurrences which identify significant lessons learned. AARs are required after most unit exercises, operations, significant events and special occasions. MCLLS is a responsive method for initiating action to correct deficiencies or shortfalls noted through the analysis of after action reports in the areas of doctrine, organization, training and education, and equipment.

MCLLS interfaces with other lessons learned centers including the Joint Center for Lessons Learned (JCLL) and the Center for Army Lessons Learned (CALL).

One of the elements of MCLLS is a Marine Corps-wide Remedial Action Program (RAP). RAP uses the analysis of AARs to identify deficiencies or shortcomings in current doctrine, organization, training and education, and equipment. RAP uses the MCLLS software to assist in tracking corrective

actions. RAP works in a continuous cycle. This cycle identifies remedial action (RA) items through the analysis of AARs , assigns an Office of Primary Responsibility (OPR) who develops a plan to correct the deficiency, monitors the progress of the corrective action, validates the corrective action through testing, and closes the RA item once a suitable solution has been achieved.
System User: CMC (PP&O), (I&L) (IG), (P&R), (C4I), (A), (M&RA); MARCORSYSCOM; MCCDC; USMC units, organizations, posts and stations.
Functional Manager: MCCDC

MIS: MCSAM
MIS TITLE: MARINE CORPS STATUS OF RESOURCES AND TRAINING SYSTEM ANALYSIS MODULE

Description: Marine Corps SORTS Analysis Module is an automated tool used to revise, correlate and analyze SORTS data.
System User: HQMC
Functional Manager: PP&O

MIS: MIMMS AIS
MIS TITLE: MARINE CORPS INTEGRATED MAINTENANCE MANAGEMENT SYSTEM AUTOMATED INFORMATION SYSTEM

Description: MIMMS is a set of manual procedures by which the effective use of personnel, money, facilities and material as applied to the maintenance of ground equipment is controlled. It is supported by an automated information system (AIS) which functions as a stand alone Class I system that interfaces with existing Marine Corps systems and programs. MIMMS and MIMMS AIS apply to all command levels and maintenance echelons. They provide management visibility to the user level while simultaneously collating maintenance engineering analysis information for item management. MIMMS enables commanders to prioritize assets to better accomplish the maintenance mission and thereby improve readiness. MIMMS/AIS has three subsystems: the Headquarters Maintenance Subsystem (HMSS), the Depot Maintenance Subsystem(DMSS) and the Field Maintenance Subsystem (FMSS). One of MIMMS key functional areas is personnel and training.
System User: Marine Corps wide
Functional Manager: CMC (I&L)

MIS: MTP
MIS TITLE: MANPOWER AND TRAINING PLAN

Description: The MTP addresses contractor and Marine Corps personnel (military and civilian) support for tests, training, maintenance and operation of a weapons system. It identifies the manpower, personnel, and training requirements by MOS and skill levels for the successful completion of the weapon systems mission. The MTP is normally prepared when the more detailed HARDMAN is not required. The MTP describes in detail the manpower, personnel and training requirements for an acquisition program. It is drafted as an independent document during program initiation (pre-Milestone I). The plan is updated and approved as part of that document.
System User: MARCORSYSCOM, MCCDC, CMC (M&RA, I&L)
Functional Manager: MARCORSYSCOM

MIS: MORDT
MIS TITLE: MOBILIZATION OPERATIONAL READINESS DEPLOYMENT TEST

Description: The MORDT is a no-notice mobilization drill designed to test mobilization deployment readiness. Selected Marine Corp Reserve (SMCR) units are evaluated in the areas of administration, logistics/supply, embarkation/transportation and recall procedures. MORDTs are conducted for each SMCR unit at least every 3 years. The readiness of units tested is reported to CMC (RES).
System User: CMC, MARRESFOR, SCMR units
Functional Manager: MARRESFOR

MIS: NATOPS
MIS TITLE: NAVAL AIR TRAINING AND OPERATING PROCEDURES STANDARDIZATION PROGRAM

Description: NATOPS is a positive approach toward improving combat readiness and achieving a substantial reduction in the aircraft accident rate. Standardization, based on professional knowledge and experience, provides the basis for development of an efficient and sound operational procedure. The standardization program is not planned to stifle individual initiative, but rather to aid the commanding officer in increasing the unit's combat potential without reducing command prestige or responsibility.

NATOPS standardizes ground and flight procedures but does not include tactical doctrine. Commanding officers of aviation units are authorized to modify procedures in accordance with published waiver procedures.
System User: All aviation units
Functional Manager: NAVAIR

MIS: NAVFLIRS
MIS TITLE: NAVAL FLIGHT RECORD SUBSYSTEM

Description: A Department of the Navy automated database which contains all data elements required to manage Navy/Marine Corps aviation assets. The system contains information on specific training tasks accomplished by individual aircrew, both for flight and ground training, and the attainment of specific qualifications. Monthly updates are provided. NAVFLIRS can be fielded with deployed units.
System User: All Marine aircraft units
Functional Manager: CMC (A)

MIS: NITRAS
MIS TITLE: NAVY INTEGRATED TRAINING RESOURCE AND ADMINISTRATIVE SYSTEM

Description: Nitras is an automated training management system that contains records of Marines training in Navy schools.
System User: CMC (A)
Functional Manager: NAVY

MIS: OCCFIELD FEA
MIS TITLE: OCCUPATIONAL FIELD FRONT END ANALYSIS

Description: OCC Field FEA is made up of two elements; occupational analysis and training analysis.

Occupation analysis determines what jobs are actually being performed in the Marine Corps and then compares those jobs to previously published MOS descriptions, occupational field structures and training standards. It compares what is actually being done in the field to doctrine to provide effective allocation of resources.

Training analysis determines which of the tasks identified during the occupational analysis should be learned. This determination is made after a review of doctrine and resources available for training.

System User: MCCDC (T&E Division), CMC (M&RA)
Functional Manager:MCCDC (T&E Division)

MIS: SABRS
MIS TITLE: STANDARD ACCOUNTING, BUDGETING, AND REPORTING SYSTEM

Description: SABRS is the Marine Corps, accounting system. It produces budget execution reports. SABRE is comprised of thirteen subsystems which are functionally divided and all processing relative to that function is contained in a single subsystem. Three of the subsystems (civilian labor, travel, and material/service) are considered spending subsystems. The remaining subsystems (plant property general ledger, reimbursables, expenditures and collections, facilities, budget formulation, budget execution, allocations, reports inquiry and table management) are specialized subsystems which account for Marine Corps' funds designated for special purposes.
System User: Marine Corps wide
Functional Manager: CMC (FD)

MIS: SEMP
MIS TITLE: SUPPORTING ESTABLISHMENT MASTER PLAN

Description: The SEMP is the non-FMF complement of the Marine Corps Master Plan (MCMP). It is developed concurrently with the MCMP and defines the process by which Supporting Establishment programs and initiatives are identified and prioritized to support the Total Force. This process tailors Marine Corps capabilities to the specific needs of supported forces, Marines and their dependents. With operation force participation, force requirements are identified and prioritized by installation and region. In the SEMP, Supporting Establishment goals and objectives are listed by functional area. Training and education is one of the functional areas.
System User: Supporting Establishment, CMC, MCCDC
Functional Sponsor: CMC (I&L)

MIS: SME CONFERENCE FOR TRAINING AND EDUCATION
MIS TITLE: SUBJECT MATTER EXPERT CONFERENCE FOR TRAINING AND EDUCATION

Description: Meetings of functional area experts for the purpose of resolving training and education issues in a particular area.
System User: Marine Corps wide
Functional Manager: MCCDC (T&E Division)

MIS: SORTS
MIS TITLE: STATUS OF RESOURCES AND TRAINING SYSTEM

Description: SORTS is an internal management tool for use by the Chairman of the Joint Chiefs of Staff, Services and combatant commands. It is the single, automated reporting system within the Department of Defense that functions as the central registry of all operational units of the U.S. Armed Forces and certain foreign organizations. For specified registered units, SORTS indicates, at a selected point in time, the level of selected resources and training status required to undertake the mission(s) for which the unit was organized or designed.

As a resource and unit monitoring system, SORTS is designed to support, in priority order, information requirements related to crisis response planning; deliberate or peacetime planning; and management responsibilities to organize, train, and equip forces for use by the CINCs.

Marine Corps units to be reported in SORTS include: MAGTFs (MEF, MEB, and MEU), MAGTF elements (CE, GCE, ACE, AND CSSE), battalions, squadrons, and separate deployable or deployed companies, batteries, or detachments.

Regarding training:
Units will report the present level of training as compared to the standards for a fully trained unit as defined by Joint and Service directives. Language requirements will be considered where appropriate. Training status levels (T-1 through T-4) are assigned according to days of training required, percentage of operationally ready aircrews for assigned personnel and percentage of mission essential tasks trained for assigned personnel.

To ensure useful, consistent, and accurate information is provided to the decisionmaker, assessing and reporting unit training status in SORTS will be based on Service-identified training events that must be completed within specified intervals for a fully trained unit.

Commanders provide a subjective assessment of that portion of the unit's full wartime mission it is expected to be able to perform, if alerted or committed, within the next 72 hours. In crisis or wartime, the subjective assessment will be based only on that portion of the mission for which the unit was alerted or committed. Service responsibilities and bands of unit effectiveness percentages and associated unit capability descriptions are specified in Joint Pub 1-03.3.
System User: DoD
Functional Manager: Joint Staff, J3

MIS: T&R MANUAL
MIS TITLE: TRAINING AND READINESS MANUAL

Description: The manual prescribes the number of flights/events, the tasks to be accomplished on each flight/ event and the refly factor for skill retention. The purpose of the manual is to standardize the aircrew and MACCS Personnel Training Syllabi in the Marine Corps and to specify performance requirements for flight and non- flight qualifications.
System User: MCCDC (T&E DIVISION), All aviation units
Functional Manager: MCCDC (T&E DIVISION)

MIS: TRRMS
MIS TITLE: TRAINING REQUIREMENTS AND RESOURCE MANAGEMENT SYSTEM

Description: TRRMS supports data requirements in five areas. First, provides for the collection, compilation and dissemination of training requirements. Second, provides for the development and dissemination of Training Quota Memorandum. Third, provides management information to action officers, e.g. to monitor the effectiveness of training execution. Fourth, identifies the costs of training. Finally, provides budget formulation and execution data for T&E Division training budgets. TRRMS interfaces with ATTARS (Army), BNA, NITRAS (Navy) and TM (USAF). Excessive time awaiting training can be identified through the information provided by TRRMS. The system will maintain historical training statistics to provide correcting feedback.
System User: MCCDC (T&R DIVISION), CMC (M&RA)
Functional Manager: CMC (M&RA)

MIS: TSA
MIS TITLE: TRAINING SITUATION ANALYSIS

Description: TSA compares the organization's current level of training proficiency with the desired level of combat proficiency using individual and mission performance standards as measures of performance. It includes an assessment of the philosophy, management, facilities, staffing, curriculum, and instructional support of an institution. Normally, three TSAs per year are conducted.
System User: Formal schools and MCCDC
Functional Sponsor: MCCDC (T&E Division)

MIS: UJTL
MIS TITLE: UNIVERSAL JOINT TASK LIST

Description: CJCS MOP 26 requires CINCs to state their joint training requirements in the form of a Joint Mission Essential Task List. All CINC Joint Mission Essential Tasks (JMET) were incorporated in a strawman Universal Joint Task List (UJTL). The UJTL contains all CINC joint training requirements so that all CINCs can use a common language set to define required operational capabilities, describe resource requirements, and also to define joint force training requirements.
System User: DoD
Functional Manager: Joint Staff, J7

MIS: USMC INSTRUCTIONAL FEEDBACK FORM
MIS TITLE: USMC INSTRUCTIONAL FEEDBACK FORM

Description: The United States Marine Corps Instructional Feedback Form is designed for use by any Marine to recommend improvements in the instructional process. Suggestions for improvement/revision of Marine Corps training and education programs are reviewed by T&E Division, MCCDC and when appropriate, forwarded to a formal school or other staff agency for resolution.
System User: Marine Corps wide
Functional Manager: MCCDC (T&E Division)

MIS: WTI
MIS TITLE: WEAPONS TACTICS INSTRUCTION

Description: "Yuma-specific" version of NAVFLIRS that accommodates an assortment of planes, pilots and squadrons as is found in the training environment. Provides a cumulative and snapshot flight time report for aircrew and equipment during WTI. Also provides message formatting capability to send Class IA NAVFLIRS transactions for the air crew and equipment at WTI to their own organizations.
System User: Yuma and all Marine Aircraft units.
Functional Manager: CMC (A)

Appendix F

MARINE CORPS TRAI

STRAWMAN A

10 CINCs

CINCLANT

3 MEFs

II MEF

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5 Warfighting Environments

E HD MD C C

PTC LRC MRC TNW GNW

4 MAGTF Elements

CE ACE GCE CSSE

20 MAGTF Mission Areas

C E HD HD

AAW Assault Spt. Off. Air C^2 ...

40 MCMP Capability Objectives

HD E MD C

CO_1 CO_5 CO_{15} CO_{30}

500+ MCCRES Mission Performance Standards

E HD C

MPS_1 MPS_{50} MI

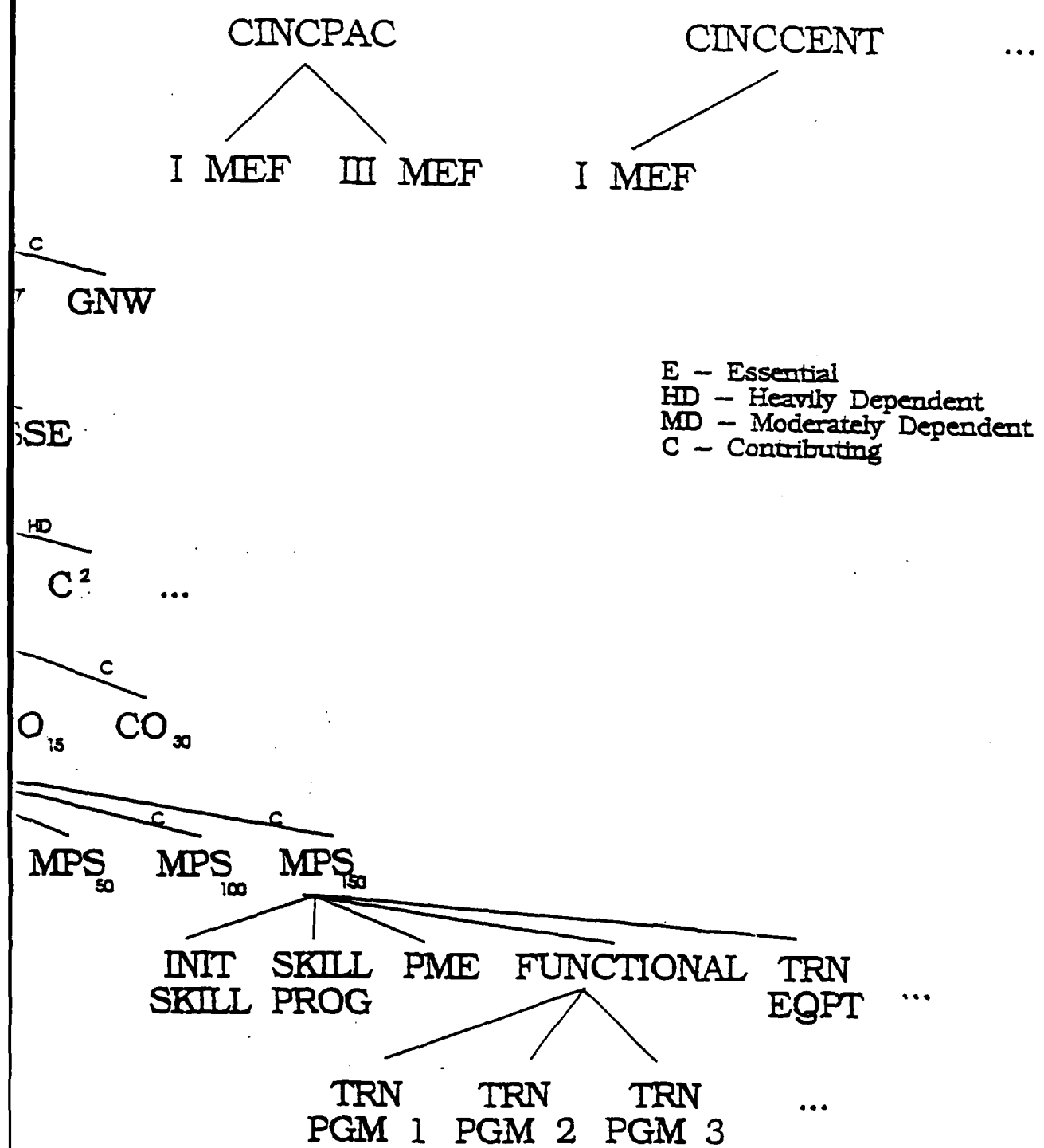
9 Training Categories

IN SK

Training Programs

CORPS TRAINING READINESS SUPPORT SYSTEM
(MCTRSS)

WMAN ASSESSMENT HIERARCHY



Appendix F

MARINE CORPS TRAINING RE/
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STRAWMAN RESOUI
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USMC T & E TOA BY APPROPRIATI

TRAINING CATEGORIES

PRIORITIZED PROGRAMS (from A

Program Resource Requi
Program Current Fundin

T & E MID-TERM OBJECTIVES & IM

SUPPORTING ESTABLISHMENT T & E

USER VARIABLE CONSTRAINTS/INPUT

"Fenced Programs"
(i.e. TQL, Drug &
"What If" Analyses

RAINING READINESS SUPPORT SYSTEM
(MCTRSS)

RESOURCE ALLOCATION FRAMEWORK

PROPRIATION (FYDP)

(from Assessment Module)

urce Requirements
ent Funding
} (POM/Budget Submits)

/ES & IMPLEMENTING ACTIONS (MCMP)

T T & E GOALS & OBJECTIVES (SEMP)

NTS/INPUTS

ams"
Drug & Alcohol Abuse, Sexual Harrassment)
alyses

APPENDIX G
REFERENCES

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